Access DB# 160359

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: C Delacroix Examiner #: 71100 Date: 7-20-05
Art Unit: 1614 Phone Number 2-0572 Serial Number: 09/616,778
Mail Box and Bldg/Room Location: Results Format Preferred (circle): PAPER DISK E-MAIL
3C70 43A78
If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): Please see attached

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search the methods of claims 1, 3, 13.

Key terms are highlighted.

antidipsotropic activity to treat alcohol abuse alcohol dependence

Thanks
Cybille

****

STAFF USE ONLY

Searcher: _____
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: _____
Date Completed: 7/25/05
Searcher Prep & Review Time: _____
Clerical Prep Time: _____
Online Time: _____

PTO-1590 (8-01)

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) _____
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN _____
Dialog _____
Questel/Orbit _____
Dr.Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____

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=> file hcaplus
FILE 'HCAPLUS' ENTERED AT 15:16:05 ON 25 JUL 2005
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FILE COVERS 1907 - 25 Jul 2005  VOL 143 ISS 5
FILE LAST UPDATED: 24 Jul 2005  (20050724/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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L1                STR
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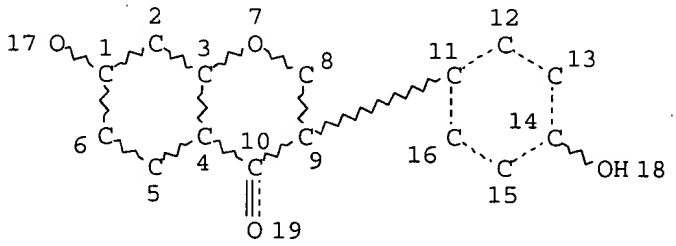


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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  19

STEREO ATTRIBUTES: NONE
L3          1168 SEA FILE=REGISTRY SSS FUL L1
L4            48 SEA FILE=REGISTRY ABB=ON  PLU=ON  ALDH2 OR ALDH(L)2
L6            27 SEA FILE=REGISTRY ABB=ON  PLU=ON  ALCOHOL DEHYDROGENASE 2?/CN
L15         6832 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3
L16          684 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 OR L4 OR ALDH2 OR ALDH
                 (W)2 OR ALCOHOL (W) DEHYDROGENASE (W) 2
L17            8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L15 AND L16


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L17  ANSWER 1 OF 8  HCAPLUS  COPYRIGHT 2005 ACS on STN
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ACCESSION NUMBER: 2004:20483 HCAPLUS
DOCUMENT NUMBER: 140:71053
TITLE: Compounds useful for the inhibition of mitochondrial aldehyde dehydrogenase (**ALDH-2**) and modulating alcohol consumption, dependence and abuse
INVENTOR(S): Keung, Wing Ming; Vallee, Bert L.; Gao, Guangyao
PATENT ASSIGNEE(S): The Endowment for Research in Human Biology, Inc., USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004002470	A1	20040108	WO 2003-US20584	20030627
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2491089	AA	20040108	CA 2003-2491089	20030627
US 2004068003	A1	20040408	US 2003-609120	20030627
EP 1542675	A1	20050622	EP 2003-762244	20030627
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.: US 2002-391907P P 20020627
WO 2003-US20584 W 20030627

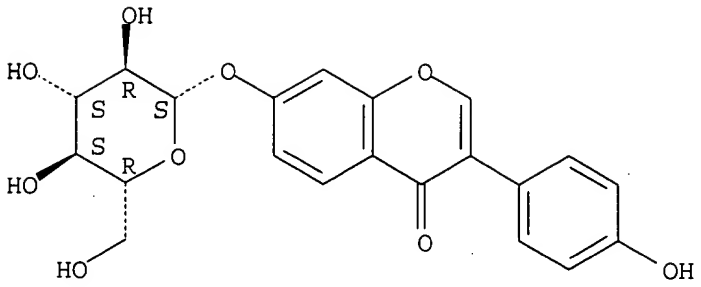
OTHER SOURCE(S): MARPAT 140:71053

AB The present invention provides novel antidipsotropic compds. The invention further provides methods of inhibiting **ALDH-2** using the compds. described herein. Methods for modulating alc. consumption, alc. dependence and/or alc. abuse by administering the compds. of the invention to an individual are also provided. The present invention further provides a rationale for designing addnl. novel antidipsotropic compds. Hexzein, given orally, reduced ethanol intake in hamsters.

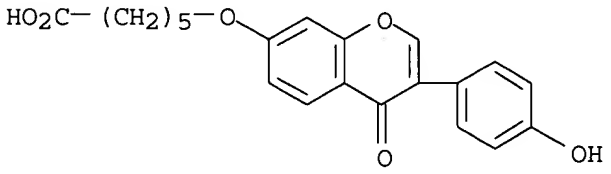
IT **552-66-9**, Daidzin
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PKT (Pharmacokinetics); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (**ALDH-2**) and modulating alc. consumption, dependence and abuse)

RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

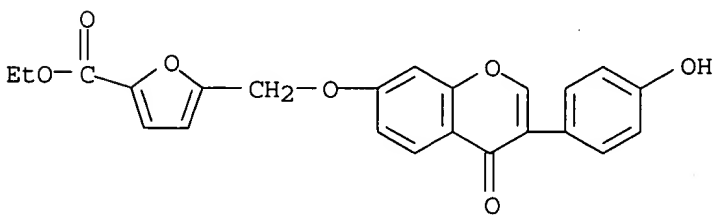
Absolute stereochemistry. Rotation (-).



IT **146698-97-7**, Hexzein
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (**ALDH-2**) and modulating alc. consumption, dependence and abuse)
RN 146698-97-7 HCAPLUS
CN Hexanoic acid, 6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



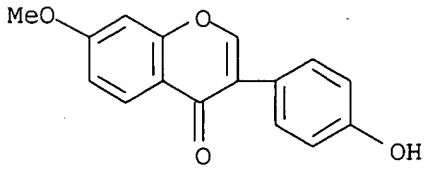
IT **640275-97-4P**
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (**ALDH-2**) and modulating alc. consumption, dependence and abuse)
RN 640275-97-4 HCAPLUS
CN 2-Furancarboxylic acid, 5-[[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]methyl]-, ethyl ester (9CI) (CA INDEX NAME)



IT **486-63-5P 371226-88-9P 371226-91-4P 371226-94-7P 371226-95-8P 371227-03-1P 371227-05-3P 640275-71-4P 640275-73-6P**

640275-78-1P 640275-79-2P 640275-89-4P
640275-91-8P 640275-93-0P 640275-95-2P
640275-96-3P 640275-99-6P
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (**ALDH-2**) and modulating alc. consumption, dependence and abuse)

RN 486-63-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-methoxy- (9CI) (CA INDEX NAME)



RN 371226-88-9 HCAPLUS
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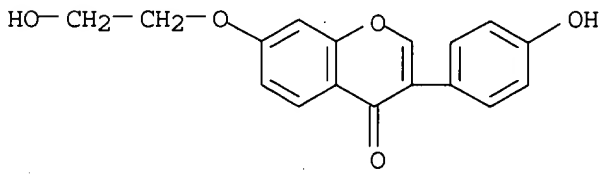
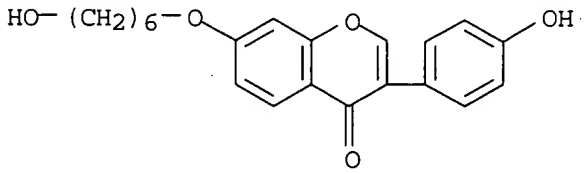
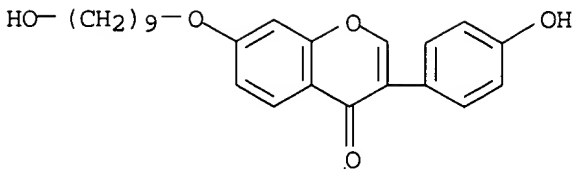


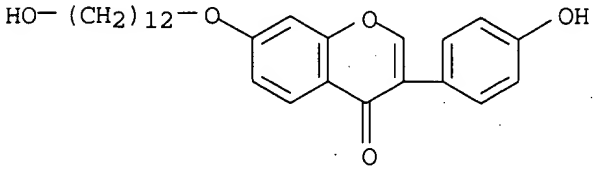
RN 371226-91-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-hydroxyhexyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



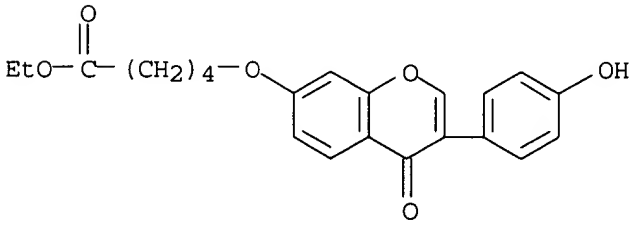
RN 371226-94-7 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(9-hydroxynonyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



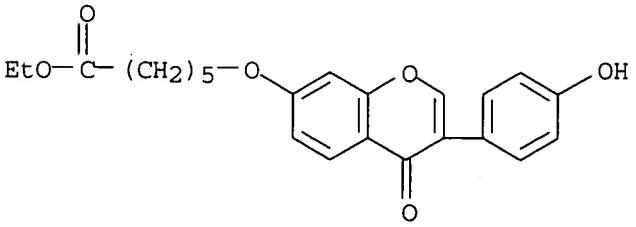
RN 371226-95-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(12-hydroxydodecyl)oxy]-3-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)



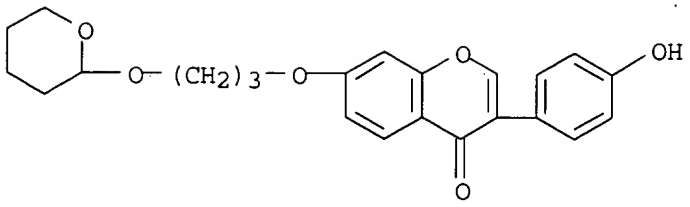
RN 371227-03-1 HCAPLUS
CN Pentanoic acid, 5-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)



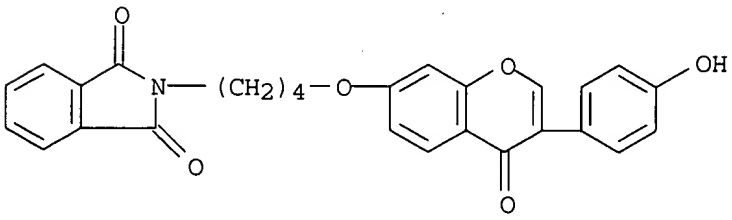
RN 371227-05-3 HCAPLUS
CN Hexanoic acid, 6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)



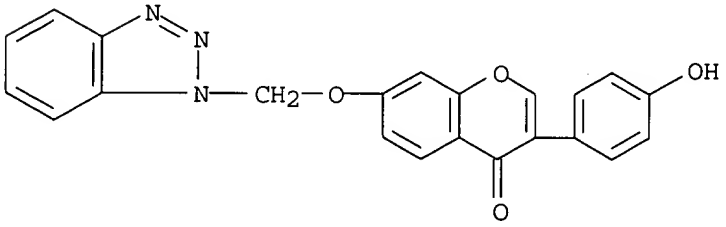
RN 640275-71-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-[3-[(tetrahydro-2H-pyran-2-yl)oxy]propoxy]- (9CI) (CA INDEX NAME)



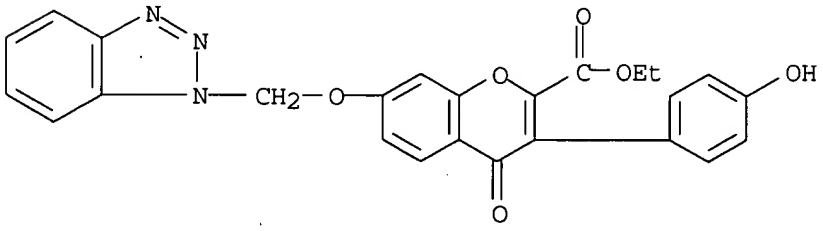
RN 640275-73-6 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]butyl]- (9CI) (CA INDEX NAME)



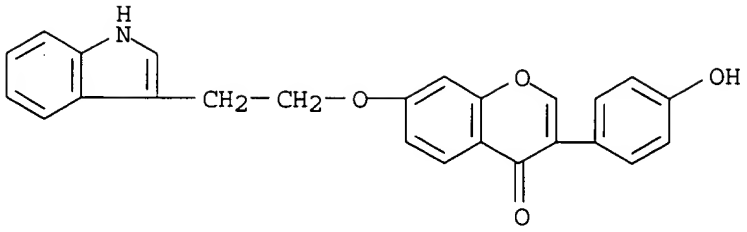
RN 640275-78-1 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(1H-benzotriazol-1-ylmethoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



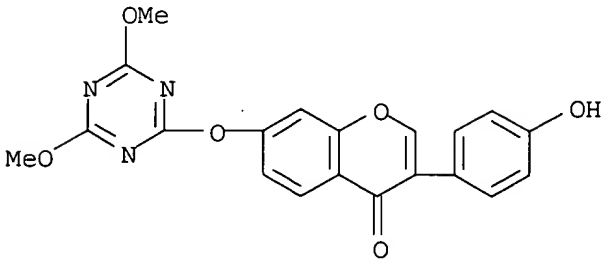
RN 640275-79-2 HCAPLUS
CN 4H-1-Benzopyran-2-carboxylic acid, 7-(1H-benzotriazol-1-ylmethoxy)-3-(4-hydroxyphenyl)-4-oxo-, ethyl ester (9CI) (CA INDEX NAME)



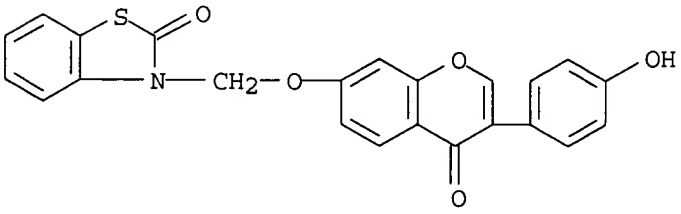
RN 640275-89-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-[2-(1H-indol-3-yl)ethoxy]- (9CI) (CA INDEX NAME)



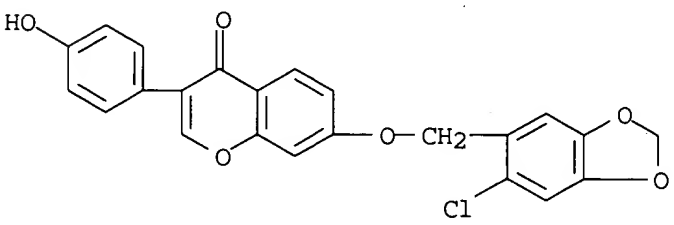
RN 640275-91-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(4,6-dimethoxy-1,3,5-triazin-2-yl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



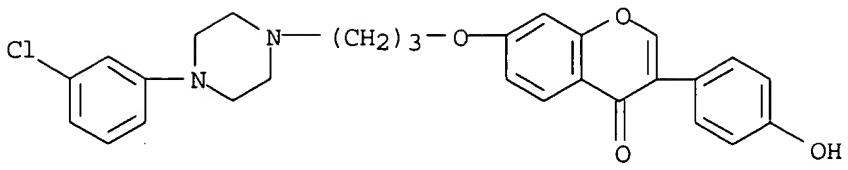
RN 640275-93-0 HCAPLUS
CN 2(3H)-Benzothiazolone, 3-[[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]methyl]- (9CI) (CA INDEX NAME)



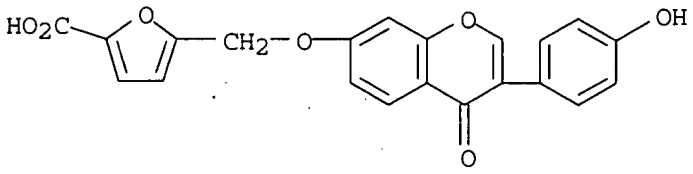
RN 640275-95-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-chloro-1,3-benzodioxol-5-yl)methoxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



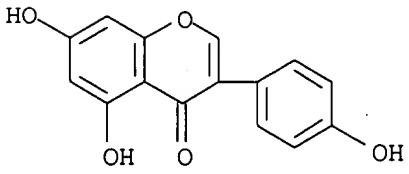
RN 640275-96-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[3-[4-(3-chlorophenyl)-1-piperazinyl]propoxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



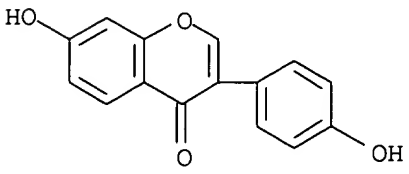
RN 640275-99-6 HCAPLUS
CN 2-Furancarboxylic acid, 5-[[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]methyl]- (9CI) (CA INDEX NAME)



IT **446-72-0 486-66-8**, Daidzein **552-59-0**
97846-18-9 146698-98-8, Hepzein **146698-99-9**,
Undeczein **188881-56-3**, Deczein **371226-97-0**
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (**ALDH-2**) and modulating alc. consumption, dependence and abuse)
RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

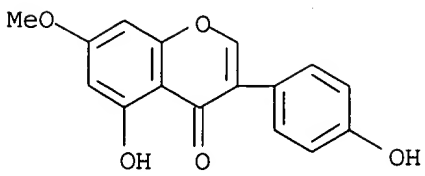


RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

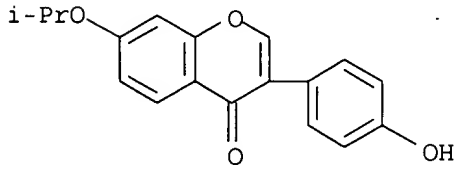


RN 552-59-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5-hydroxy-3-(4-hydroxyphenyl)-7-methoxy- (9CI) (CA

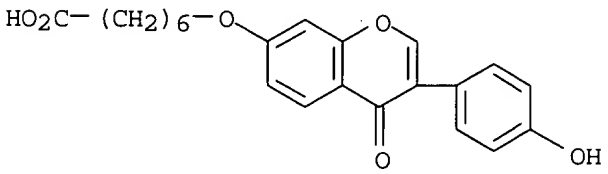
INDEX NAME)



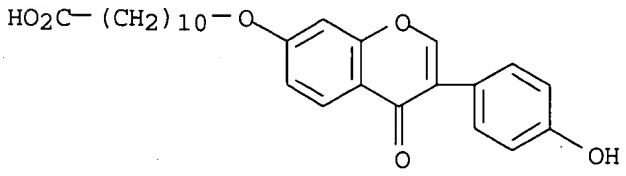
RN 97846-18-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-(1-methylethoxy)- (9CI) (CA INDEX NAME)



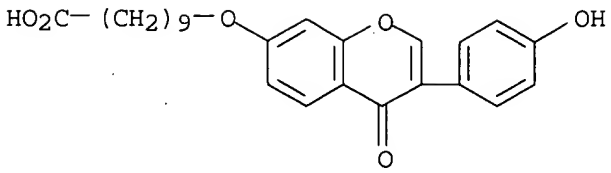
RN 146698-98-8 HCAPLUS
CN Heptanoic acid, 7-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



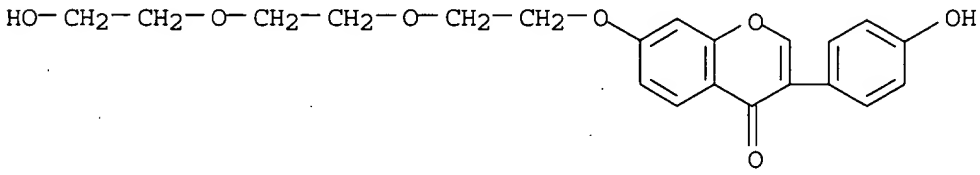
RN 146698-99-9 HCAPLUS
CN Undecanoic acid, 11-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



RN 188881-56-3 HCAPLUS
CN Decanoic acid, 10-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)

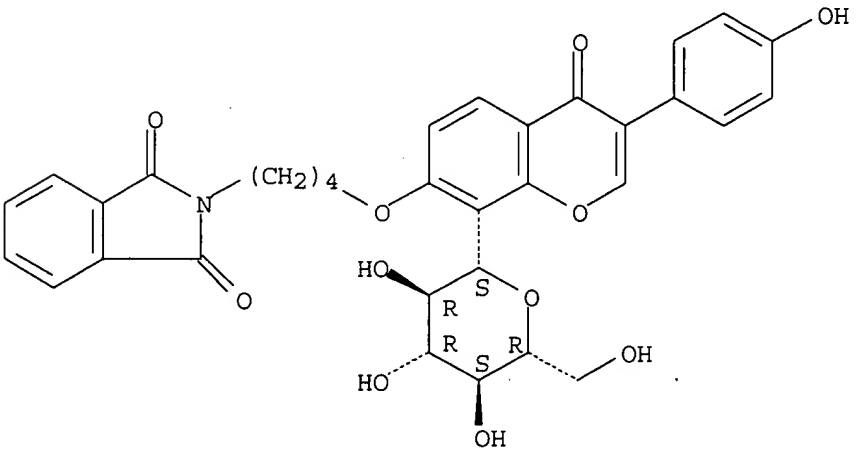


RN 371226-97-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



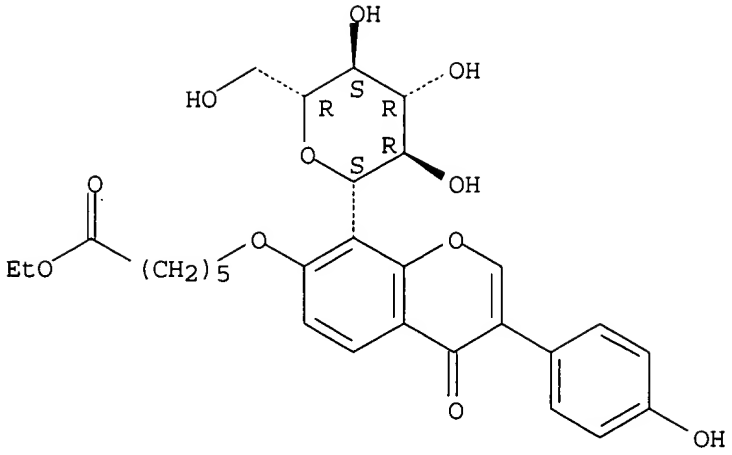
IT **640275-77-0P 640275-88-3P**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (**ALDH-2**) and modulating alc. consumption, dependence and abuse)
RN 640275-77-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)butoxy]-8-β-D-glucopyranosyl-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



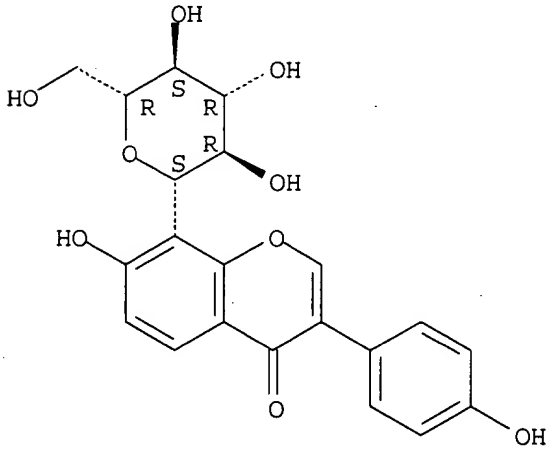
RN 640275-88-3 HCAPLUS
CN Hexanoic acid, 6-[[8-β-D-glucopyranosyl-3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

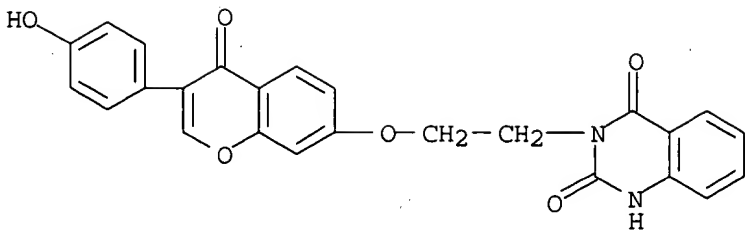


IT **3681-99-0**, Puerarin
RL: RCT (Reactant); RACT (Reactant or reagent)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (**ALDH-2**) and modulating alc. consumption, dependence and abuse)
RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

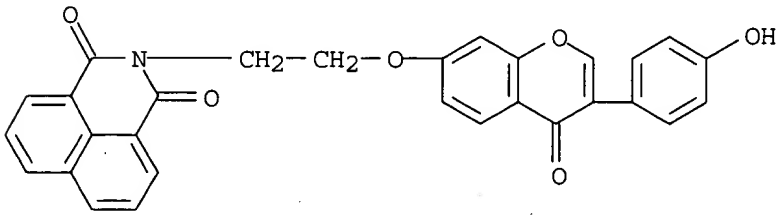
Absolute stereochemistry.



IT **640275-90-7P 640275-98-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(antidipsotropic compds. useful for inhibition of mitochondrial aldehyde dehydrogenase (**ALDH-2**) and modulating alc. consumption, dependence and abuse)
RN 640275-90-7 HCAPLUS
CN 2,4(1H,3H)-Quinazolinedione, 3-[2-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]ethyl]- (9CI) (CA INDEX NAME)



RN 640275-98-5 HCAPLUS
CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[2-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]ethyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:932226 HCAPLUS
DOCUMENT NUMBER: 140:298665
TITLE: Anti-dipsotropic isoflavones: the potential therapeutic agents for alcohol dependence
AUTHOR(S): Keung, Wing Ming
CORPORATE SOURCE: Department of Psychiatry, Massachusetts Mental Health Center, and Center for Biochemical and Biophysical Sciences and Medicine, Harvard Medical School, Cambridge, MA, 02139, USA
SOURCE: Medicinal Research Reviews (2003), 23(6), 669-696
CODEN: MRREDD; ISSN: 0198-6325
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review on the anti-dipsotropic isoflavones: the potential therapeutic agents for alc. dependence. Daidzin is the active principle of Radix puerariae (RP), an herbal remedy that has been used apparently safely and effectively for the treatment of "alc. addiction" in China for more than a millennium. It has been shown to reduce alc. consumption in all animal models tested to date. A link between daidzin's capacity to reduce alc. consumption and its ability to increase liver mitochondrial monoamine oxidase (MAO): aldehyde dehydrogenase (**ALDH-2**) activity ratio has been established. Daidzin analogs that potently inhibit **ALDH-2** but not MAO are the most antidipsotropic, whereas those that also inhibit MAO are not. On the basis of these findings, it was proposed that the liver mitochondrial MAO-**ALDH-2** pathway is the primary site of action of daidzin and that a biogenic aldehyde derived from the action of MAO mediates its anti-dipsotropic action. Therefore, to design and synthesize more potent

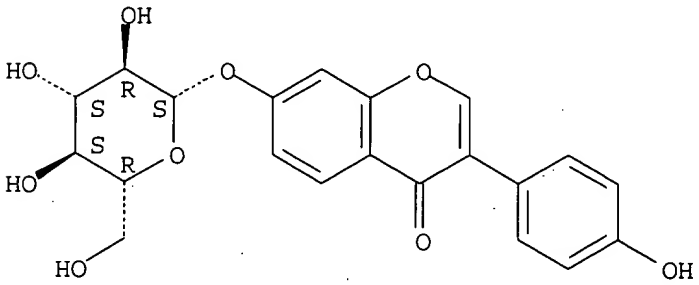
anti-dipsotropic analogs, structural features that would enhance **ALDH-2** inhibition and/or decrease MAO inhibition needed to be evaluated. Structure-activity-relationship (SAR) studies have revealed that a sufficient set of criteria for a potent anti-dipsotropic analog is an isoflavone with a free 4'-OH function and a straight-chain alkyl at the 7 position that has a terminal polar function such as -OH, -COOH, or -NH2. The preferable chain lengths for the 7-O-o-carboxy, 7-O-o-hydroxy, and 7-O-o-amino substituents are $5 \leq n \leq 10$, $2 \leq n \leq 6$, and $n \geq 4$, resp. Analogs that meet these criteria have increased potency for **ALDH-2** inhibition and/or decreased potency for MAO inhibition and are, therefore, likely to be potent anti-dipsotropic agents.

IT **552-66-9**, Daidzin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anti-dipsotropic isoflavones and potential therapeutic agents for alc. dependence)

RN 552-66-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 88 THERE ARE 88 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:645702 HCAPLUS

DOCUMENT NUMBER: 140:138710

TITLE: Synthesis of daidzin analogues as potential agents for alcohol abuse

AUTHOR(S): Gao, Guang-Yao; Li, Dian-Jun; Keung, Wing Ming

CORPORATE SOURCE: Center for Biochemical and Biophysical Science and Medicine and Department of Psychiatry at Massachusetts Mental Health Center, Harvard Medical School, Boston, MA, 02115, USA

SOURCE: Bioorganic & Medicinal Chemistry (2003), 11(18), 4069-4081
CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:138710

AB Daidzin, the active principle of an herbal remedy for ' alc. addiction', has been shown to reduce alc. consumption in all laboratory animals tested to date. Correlation studies using structural analogs of daidzin suggests that it acts by raising the monoamine oxidase (MAO)/mitochondrial aldehyde dehydrogenase (**ALDH-2**) activity ratio (J. Med. Chemical

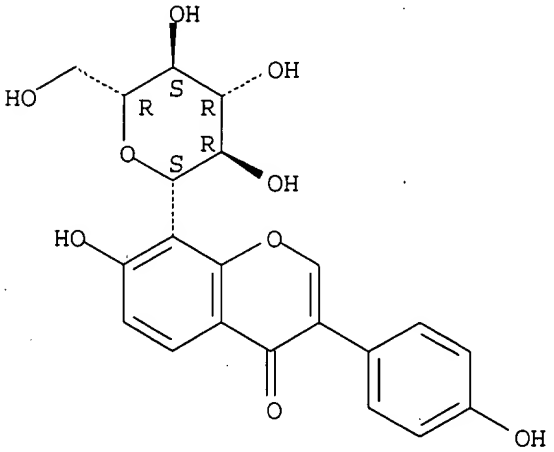
2000, 43, 4169). Structure-activity relationship (SAR) studies on the 7-O-substituted analogs of daidzin have revealed structural features important for **ALDH-2** and MAO inhibition (J. Med. Chemical 2001, 44, 3320). We here evaluated effects of substitutions at 2, 5, 6, 8, 3' and 4' positions of daidzin on its potencies for **ALDH-2** and MAO inhibition. Results show that analogs with 4'-substituents that are small, polar and with hydrogen bonding capacities are most potent **ALDH-2** inhibitors, whereas those that are non-polar and with electron withdrawing capacities are potent MAO inhibitors. Analogs with a 5-OH group are less potent **ALDH-2** inhibitors but are more potent MAO inhibitors. All the 2-, 6-, 8- and 3'-substituted analogs tested so far do not inhibit **ALDH-2** and/or have decreased potencies for MAO inhibition. This, together with the results obtained from previous studies, suggests that a potent antidipsotropic analog would be a 4',7-disubstituted isoflavone. The 4'-substituent should be small, polar, and with hydrogen bonding capacities such as, -OH and -NH2; whereas the 7-substituent should be a straight-chain alkyl with a terminal polar function such as -(CH2)n-OH with $2 \leq n \leq 6$, -(CH2)n-COOH with $5 \leq n \leq 10$, or -(CH2)n-NH2 with $n \geq 4$.

IT **3681-99-0**, Puerarin
RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(synthesis and structure-activity relationship of daidzin analogs as potential agents for alc. abuse)

RN 3681-99-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

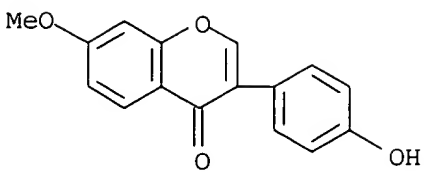


IT **486-63-5P 97846-18-9P 371226-97-0P 371227-05-3P 640275-71-4P 640275-73-6P 640275-78-1P 640275-88-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and structure-activity relationship of daidzin analogs as potential agents for alc. abuse)

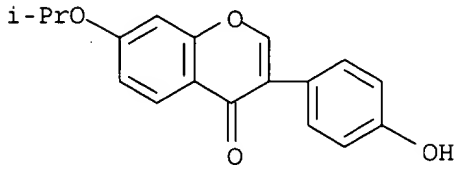
RN 486-63-5 HCAPLUS

CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-methoxy- (9CI) (CA INDEX

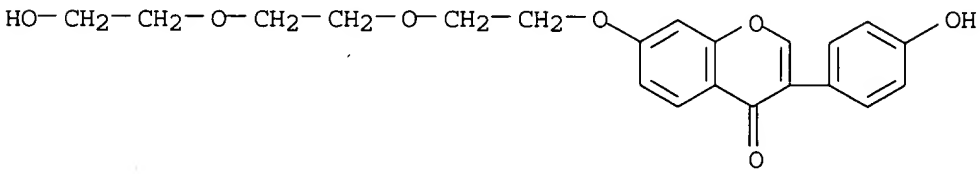
NAME)



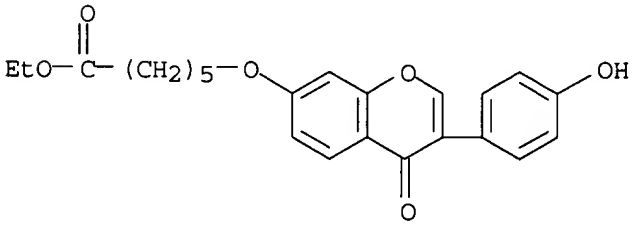
RN 97846-18-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-(1-methylethoxy)- (9CI) (CA INDEX NAME)



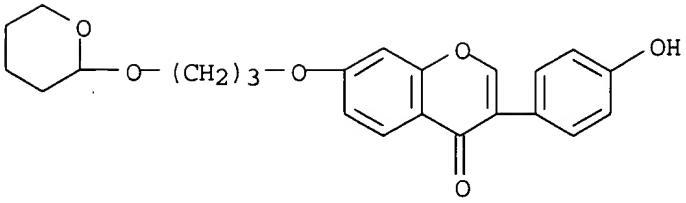
RN 371226-97-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



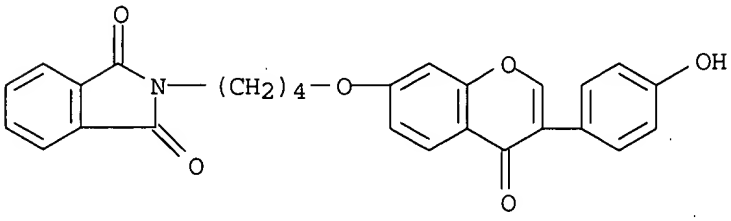
RN 371227-05-3 HCAPLUS
CN Hexanoic acid, 6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)



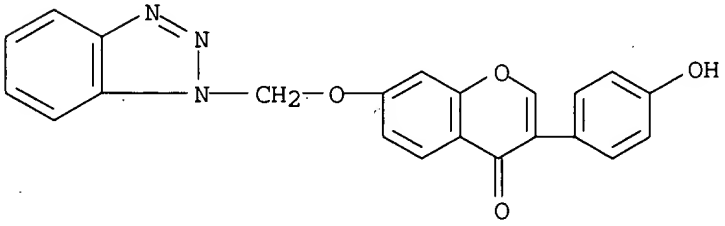
RN 640275-71-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-[3-[(tetrahydro-2H-pyran-2-yl)oxy]propoxy]- (9CI) (CA INDEX NAME)



RN 640275-73-6 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]butyl]- (9CI) (CA INDEX NAME)

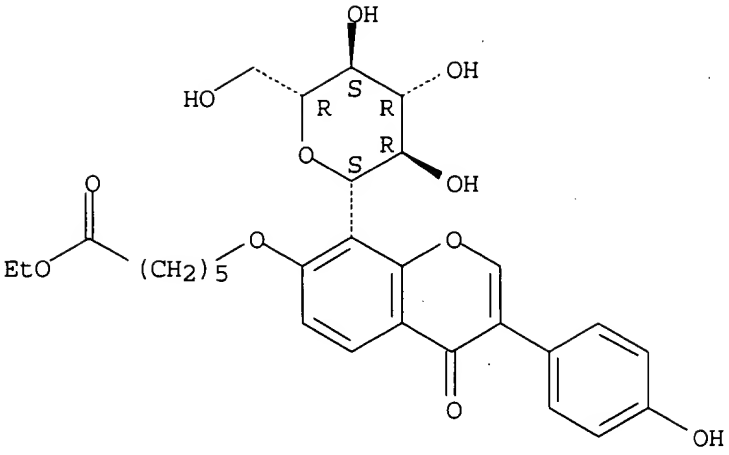


RN 640275-78-1 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(1H-benzotriazol-1-ylmethoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



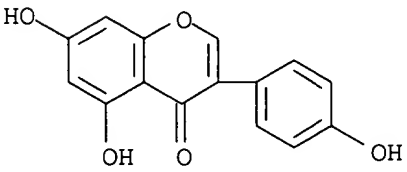
RN 640275-88-3 HCAPLUS
CN Hexanoic acid, 6-[[8-β-D-glucopyranosyl-3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

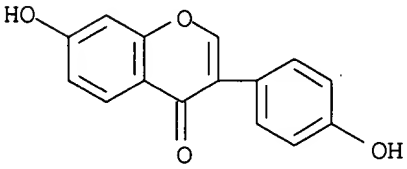


IT **446-72-0 486-66-8 529-59-9 552-59-0 552-66-9 640275-77-0**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(synthesis and structure-activity relationship of daidzin analogs as potential agents for alc. abuse)

RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

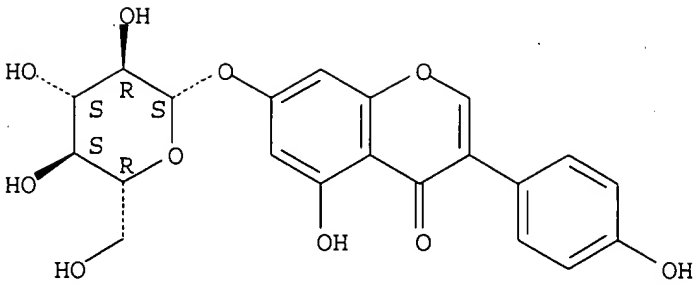


RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

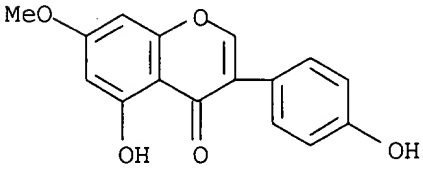


RN 529-59-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

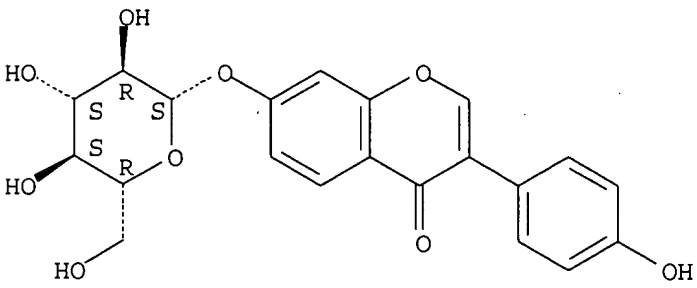


RN 552-59-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5-hydroxy-3-(4-hydroxyphenyl)-7-methoxy- (9CI) (CA INDEX NAME)



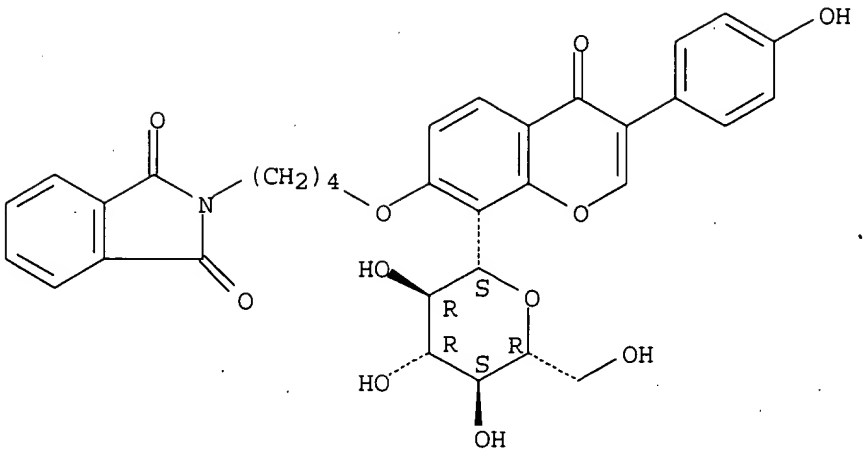
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 640275-77-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)butoxy]-8-β-D-glucopyranosyl-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:627700 HCAPLUS
DOCUMENT NUMBER: 135:344295
TITLE: Synthesis of Potential Antidipsotropic Isoflavones: Inhibitors of the Mitochondrial Monoamine Oxidase-Aldehyde Dehydrogenase Pathway
AUTHOR(S): Gao, Guang-Yao; Li, Dian-Jun; Keung, Wing Ming
CORPORATE SOURCE: Center for Biochemical and Biophysical Sciences and Medicine, Harvard Medical School, Boston, MA, 02115, USA
SOURCE: Journal of Medicinal Chemistry (2001), 44(20), 3320-3328
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:344295

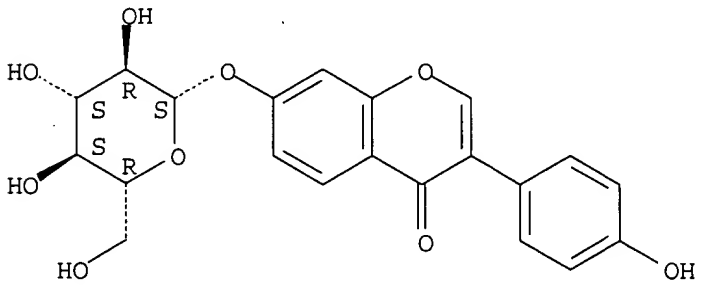
AB Recently we have shown that daidzin, the major active principle of an ancient herbal treatment for "alc. addiction", suppresses ethanol intake in alc.-preferring laboratory animals. Further, we have identified the monoamine oxidase (MAO)-aldehyde dehydrogenase (**ALDH-2**) pathway of the mitochondria as the potential site of action of daidzin. Daidzin analogs that potently inhibit **ALDH-2** but have no or little effect on MAO are most antidipsotropic, whereas those that also inhibit MAO exhibit little, if any, antidipsotropic activity. Therefore, in the design and synthesis of more potent antidipsotropic analogs, structural features important for the inhibition of both **ALDH-2** and MAO must be taken into consideration. To gain further information on the structure-activity relationships at the inhibitor binding sites of **ALDH-2** and MAO, we prepared 44 analogs of daidzin and determined their potencies for **ALDH-2** and MAO inhibition. Results indicate that a sufficient set of criteria for a potent antidipsotropic analog is an isoflavone with a free 4'-OH function and a straight-chain alkyl substituent at the 7 position that has a terminal polar function such as -OH, -COOH, or -NH2. The preferable chain lengths for the 7-O-ω-hydroxy, 7-O-ω-carboxy, and

7-O-ω-amino substituents are $2 \leq n \leq 6$, $5 \leq n \leq 10$, and $n \geq 4$, resp. Analogs that meet these criteria have increased potency for **ALDH-2** inhibition and/or decreased potency for MAO inhibition and therefore are likely to be potent antidipsotropic agents.

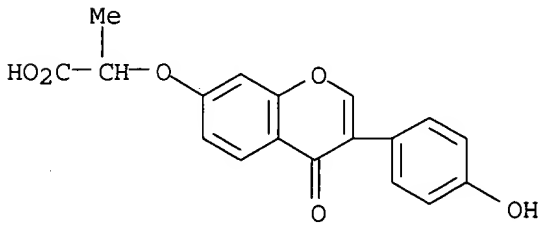
IT **552-66-9**, Daidzin **99007-87-1 146698-96-6 146698-97-7 146698-98-8 146698-99-9 188881-56-3 188881-57-4 188881-59-6 250252-72-3 250252-73-4 309252-38-8 309252-39-9**
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(synthesis of potential antidipsotropic isoflavones as inhibitors of the mitochondrial monoamine oxidase-aldehyde dehydrogenase pathway)

RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

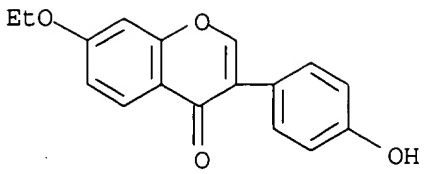
Absolute stereochemistry. Rotation (-).



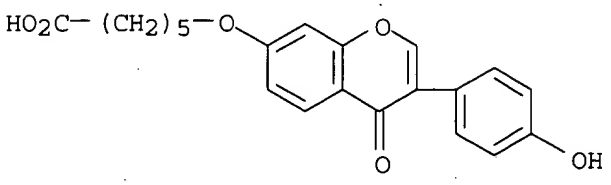
RN 99007-87-1 HCAPLUS
CN Propanoic acid, 2-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



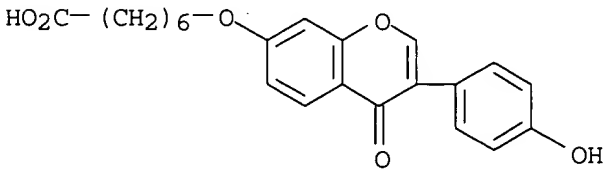
RN 146698-96-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-ethoxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



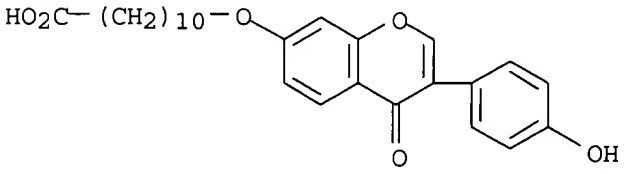
RN 146698-97-7 HCAPLUS
CN Hexanoic acid, 6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



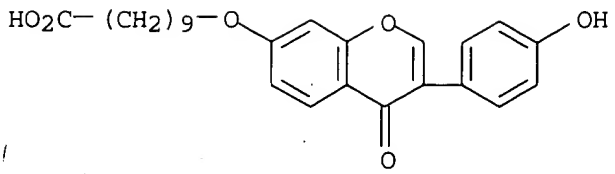
RN 146698-98-8 HCAPLUS
CN Heptanoic acid, 7-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



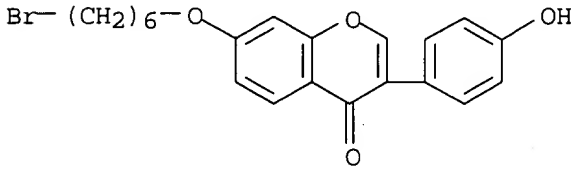
RN 146698-99-9 HCAPLUS
CN Undecanoic acid, 11-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



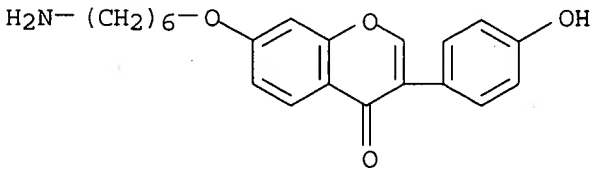
RN 188881-56-3 HCAPLUS
CN Decanoic acid, 10-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



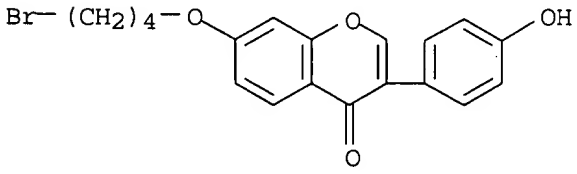
RN 188881-57-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-bromohexyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



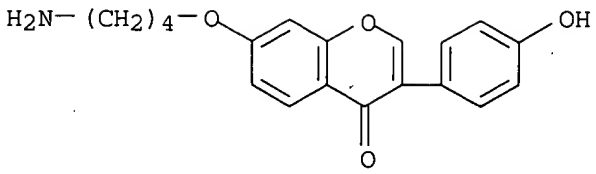
RN 188881-59-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-aminohexyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



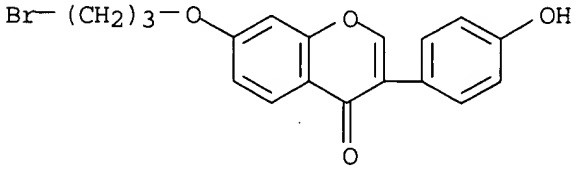
RN 250252-72-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(4-bromobutoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



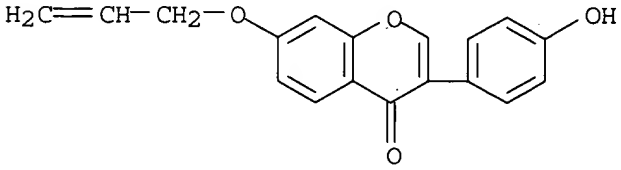
RN 250252-73-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(4-aminobutoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



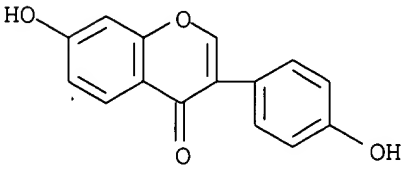
RN 309252-38-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(3-bromopropoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 309252-39-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-(2-propenyloxy)- (9CI) (CA INDEX NAME)



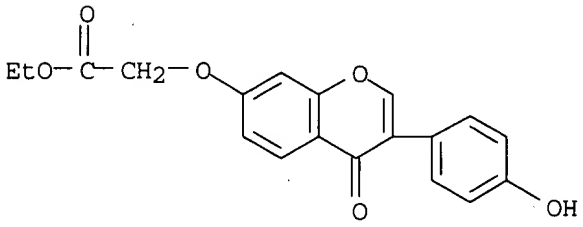
IT **486-66-8**, Daidzein
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(synthesis of potential antidipsotropic isoflavones as inhibitors of the mitochondrial monoamine oxidase-aldehyde dehydrogenase pathway)
RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



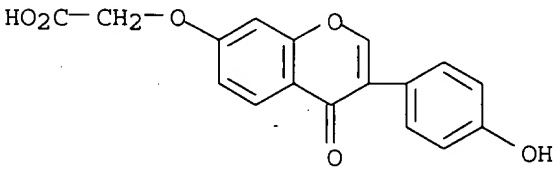
IT **38588-55-5P 38588-56-6P 38594-18-2P**
97846-18-9P 371226-65-2P 371226-67-4P
371226-71-0P 371226-76-5P 371226-82-3P
371226-85-6P 371226-88-9P 371226-91-4P
371226-94-7P 371226-95-8P 371226-97-0P

371227-03-1P 371227-05-3P 371227-08-6P
371227-11-1P 371227-13-3P 371227-16-6P
371227-18-8P
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis of potential antidipsotropic isoflavones as inhibitors of the mitochondrial monoamine oxidase-aldehyde dehydrogenase pathway)

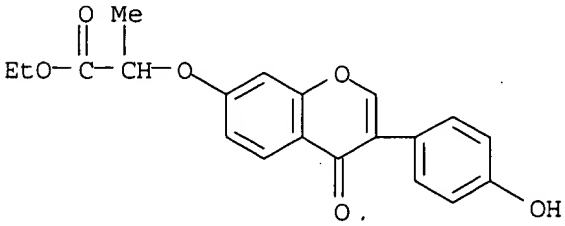
RN 38588-55-5 HCAPLUS
CN Acetic acid, [[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)



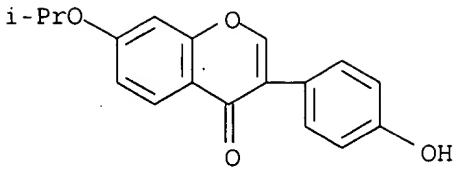
RN 38588-56-6 HCAPLUS
CN Acetic acid, [[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



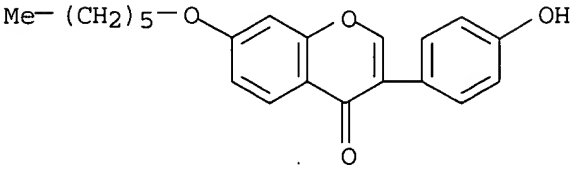
RN 38594-18-2 HCAPLUS
CN Propanoic acid, 2-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)



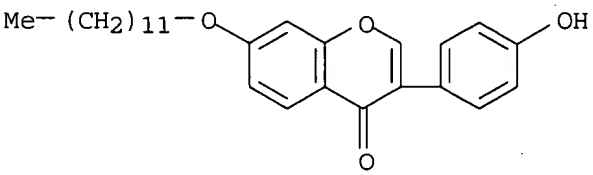
RN 97846-18-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-(1-methylethoxy)- (9CI) (CA INDEX NAME)



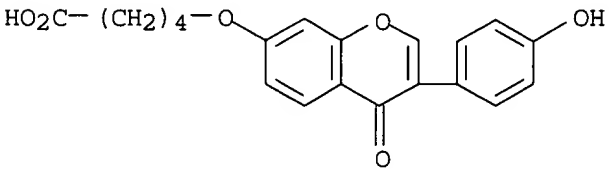
RN 371226-65-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(hexyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



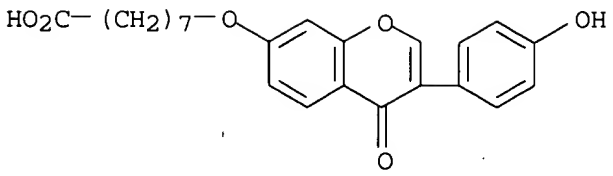
RN 371226-67-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(dodecyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



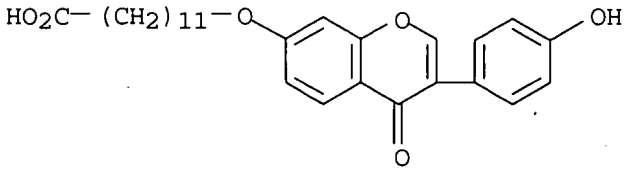
RN 371226-71-0 HCAPLUS
CN Pentanoic acid, 5-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



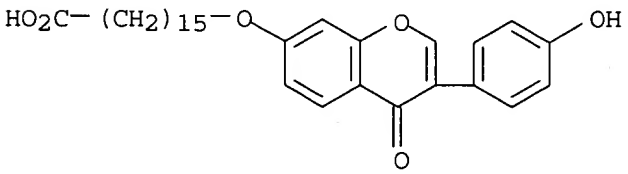
RN 371226-76-5 HCAPLUS
CN Octanoic acid, 8-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



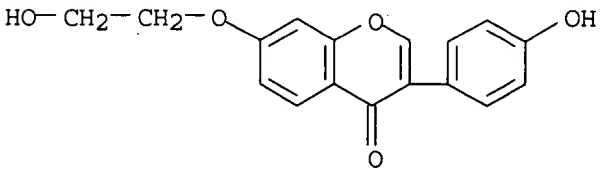
RN 371226-82-3 HCAPLUS
CN Dodecanoic acid, 12-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



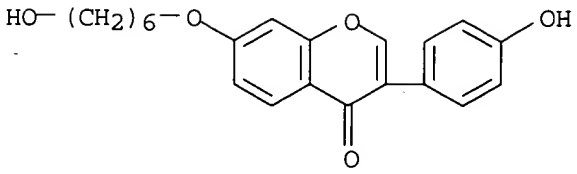
RN 371226-85-6 HCAPLUS
CN Hexadecanoic acid, 16-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



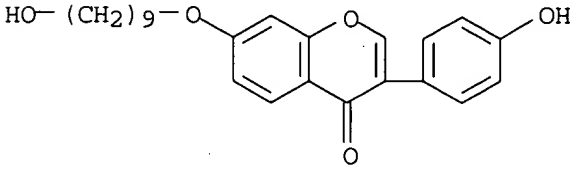
RN 371226-88-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(2-hydroxyethoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



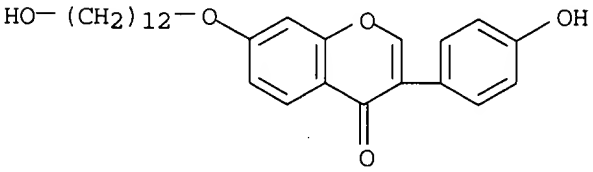
RN 371226-91-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-hydroxyhexyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



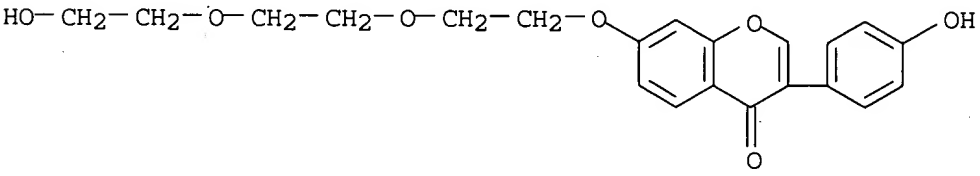
RN 371226-94-7 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(9-hydroxynonyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



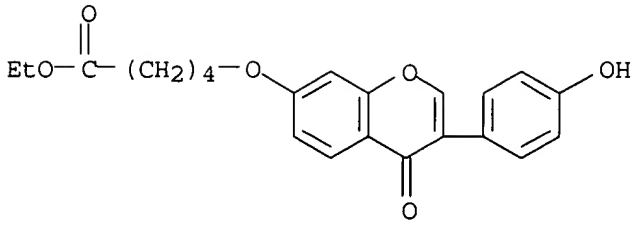
RN 371226-95-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(12-hydroxydodecyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



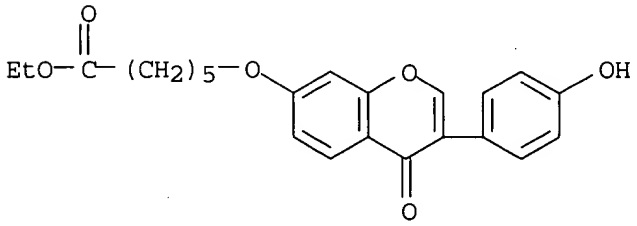
RN 371226-97-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



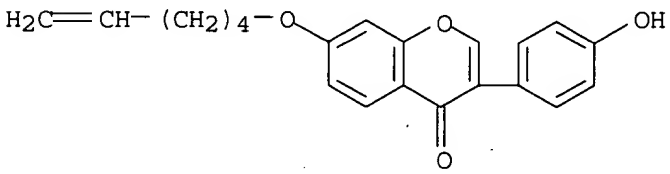
RN 371227-03-1 HCAPLUS
CN Pentanoic acid, 5-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)



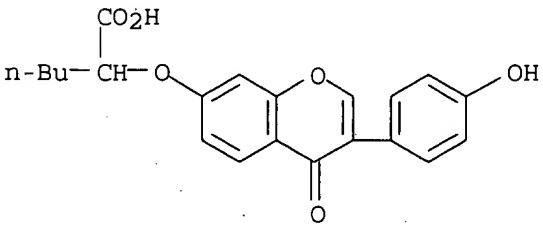
RN 371227-05-3 HCAPLUS
CN Hexanoic acid, 6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)



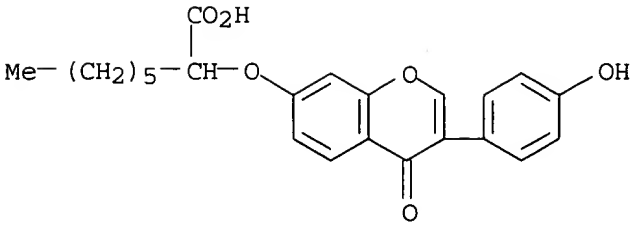
RN 371227-08-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(5-hexenyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



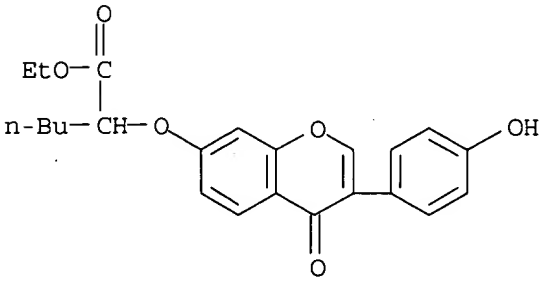
RN 371227-11-1 HCAPLUS
CN Hexanoic acid, 2-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



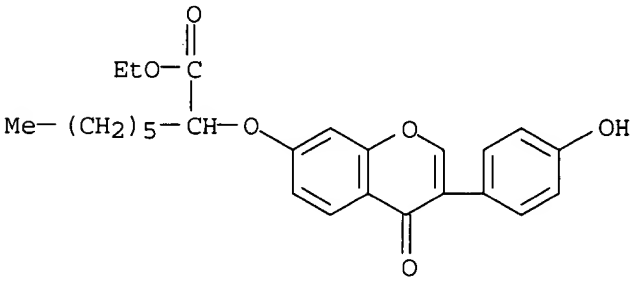
RN 371227-13-3 HCAPLUS
CN Octanoic acid, 2-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



RN 371227-16-6 HCAPLUS
CN Hexanoic acid, 2-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)



RN 371227-18-8 HCAPLUS
CN Octanoic acid, 2-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:259658 HCAPLUS
DOCUMENT NUMBER: 135:88495
TITLE: Biogenic aldehyde(s) derived from the action of monoamine oxidase may mediate the antidipsotropic effect of daidzin
AUTHOR(S): Keung, W. M.
CORPORATE SOURCE: Center for Biochemical and Biophysical Sciences and Medicine, Harvard Medical School, Boston, MA, 02115, USA
SOURCE: Chemico-Biological Interactions (2001), 130-132(1-3), 919-930

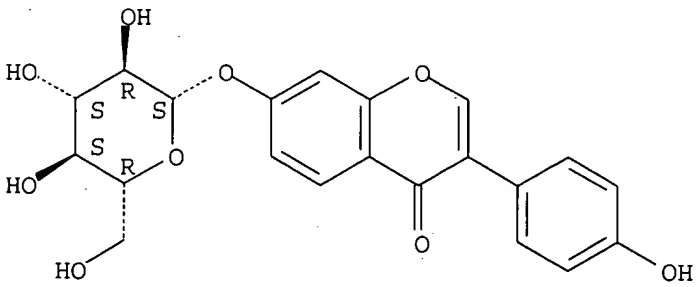
CODEN: CBINA8; ISSN: 0009-2797
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Daidzin, a major active principle of an ancient herbal treatment for 'alc. addiction', was first shown to suppress ethanol intake in Syrian golden hamsters. Since then this activity has been confirmed in Wistar rats, Fawn hooded rats, genetically bred alc. preferring P rats and African green moneys under various exptl. conditions, including two-level operant, two-bottle free-choice, limited access, and alc.-deprivation paradigms. In vitro, daidzin is a potent and selective inhibitor of mitochondrial aldehyde dehydrogenase (**ALDH-2**). However, in vivo, it does not affect overall acetaldehyde metabolism in golden hamsters. Using isolated hamster liver mitochondria and 5-hydroxytryptamine (5-HT) and dopamine (DA) as the substrates, we demonstrated that daidzin inhibits the second but not the first step of the MAO/**ALDH-2** pathway, the major pathway that catalyzes monoamine metabolism in mitochondria. Correlation studies using structural analogs of daidzin led to the hypothesis that the mitochondrial MAO/**ALDH-2** pathway may be the site of action of daidzin and that one or more biogenic aldehydes such as 5-hydroxyindole-3-acetaldehyde (5-HIAL) and/or DOPAL derived from the action of monoamine oxidase (MAO) may be mediators of its antidipsotropic action.

IT **552-66-9**, Daidzin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biogenic aldehyde(s) derived from the action of monoamine oxidase may mediate the antidipsotropic effect of daidzin)

RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

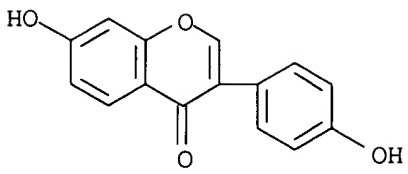
L17 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:703406 HCAPLUS
DOCUMENT NUMBER: 134:13081
TITLE: The Mitochondrial Monoamine Oxidase-Aldehyde Dehydrogenase Pathway: A Potential Site of Action of Daidzin
AUTHOR(S): Rooke, Nadege; Li, Dian-Jun; Li, Junqing; Keung, Wing Ming
CORPORATE SOURCE: Center for Biochemical and Biophysical Sciences and

Medicine, Harvard Medical School, Boston, MA, 02115, USA
SOURCE: Journal of Medicinal Chemistry (2000), 43(22), 4169-4179
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

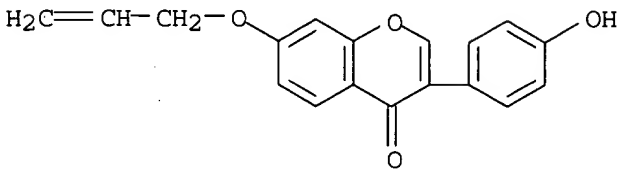
AB Recent studies showed that daidzin suppresses ethanol intake in ethanol-preferring laboratory animals. In vitro, it potently and selectively inhibits the mitochondrial aldehyde dehydrogenase (**ALDH-2**). Further, it inhibits the conversion of monoamines such as serotonin (5-HT) and dopamine (DA) into their resp. acid metabolites, 5-hydroxyindole-3-acetic acid (5-HIAA) and 3,4-dihydroxyphenylacetic acid (DOPAC) in isolated hamster or rat liver mitochondria. Studies on the suppression of ethanol intake and inhibition of 5-HIAA (or DOPAC) formation by six structural analogs of daidzin suggested a potential link between these two activities. This, together with the finding that daidzin does not affect the rates of mitochondria-catalyzed oxidative deamination of these monoamines, raised the possibility that the ethanol intake-suppressive (antidipsotropic) action of daidzin is not mediated by the monoamines but rather by their reactive biogenic aldehyde intermediates such as 5-hydroxyindole-3-acetaldehyde (5-HIAL) and/or 3,4-dihydroxyphenylacetaldehyde (DOPAL) which accumulate in the presence of daidzin. To further evaluate this possibility, we synthesized more structural analogs of daidzin and tested and compared their antidipsotropic activities in Syrian golden hamsters with their effects on monoamine metabolism in isolated hamster liver mitochondria using 5-HT as the substrate. Effects of daidzin and its structural analogs on the activities of monoamine oxidase (MAO) and **ALDH-2**, the key enzymes involved in 5-HT metabolism in the mitochondria, were also examined Results from these studies reveal a pos. correlation between the antidipsotropic activities of these analogs and their abilities to increase 5-HIAL accumulation during 5-HT metabolism in isolated hamster liver mitochondria. Daidzin analogs that potently inhibit **ALDH-2** but have no or little effect on MAO are most antidipsotropic, whereas those that also potently inhibit MAO exhibit little, if any, antidipsotropic activity. These results, although inconclusive, are consistent with the hypothesis that daidzin may act via the mitochondrial MAO/ALDH pathway and that a biogenic aldehyde such as 5-HIAL may be important in mediating its antidipsotropic action.

IT **486-66-8P**, DAidzein **309252-39-9P**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(mitochondrial MAO-aldehyde dehydrogenase pathway: daidzin derivs. action site)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

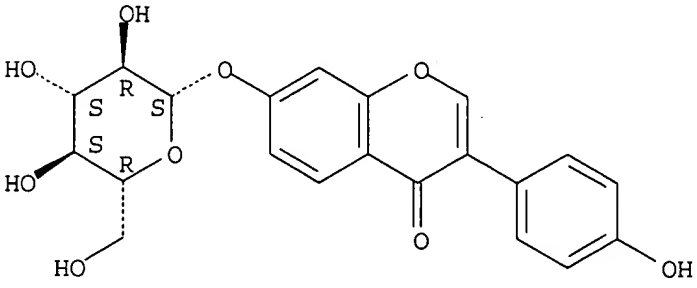


RN 309252-39-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-(2-propenyloxy)- (9CI) (CA INDEX NAME)



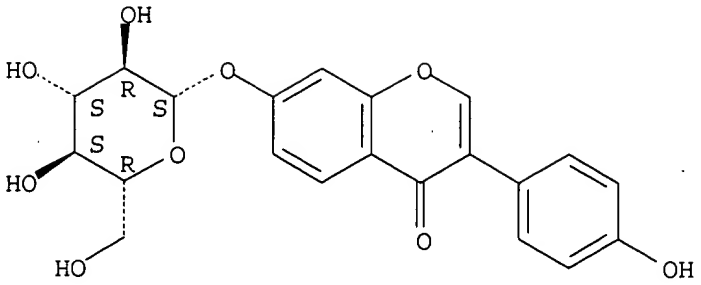
IT **552-66-9DP**, Daidzin, analogs **552-66-9P**
146698-96-6P 146698-97-7P 146698-98-8P
146698-99-9P 188881-56-3P 188881-57-4P
250252-71-2P 250252-72-3P 250252-74-5P
309252-38-8P
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(mitochondrial MAO-aldehyde dehydrogenase pathway: daidzin derivs. action site)
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

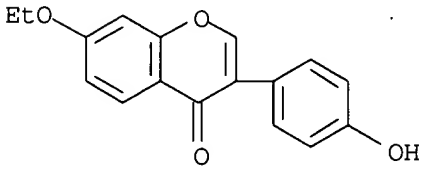


RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

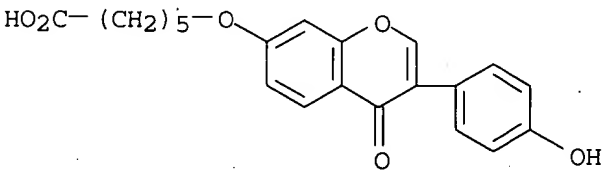
Absolute stereochemistry. Rotation (-).



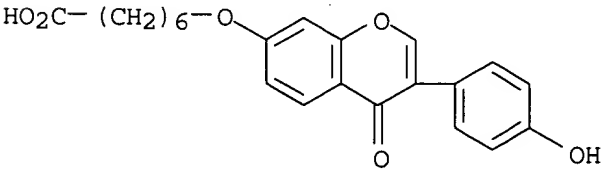
RN 146698-96-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-ethoxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



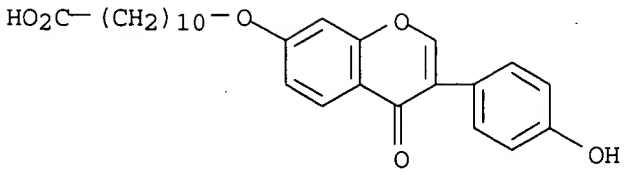
RN 146698-97-7 HCAPLUS
CN Hexanoic acid, 6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



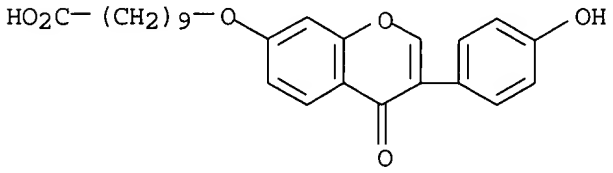
RN 146698-98-8 HCAPLUS
CN Heptanoic acid, 7-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



RN 146698-99-9 HCAPLUS
CN Undecanoic acid, 11-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



RN 188881-56-3 HCAPLUS
CN Decanoic acid, 10-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



RN 188881-57-4 HCAPLUS
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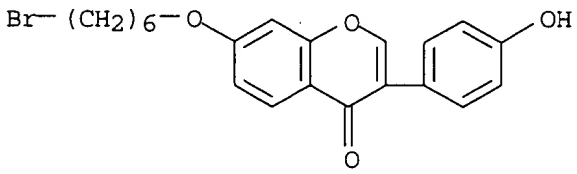

RN 250252-71-2 HCAPLUS
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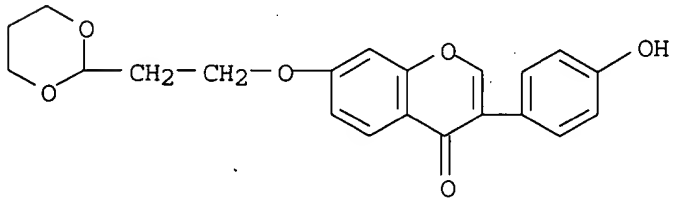
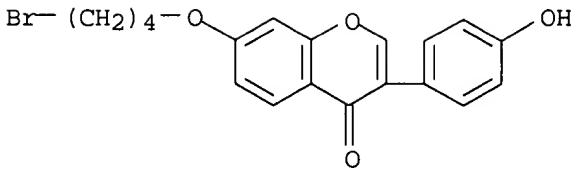


RN 250252-72-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(4-bromobutoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 250252-74-5 HCAPLUS
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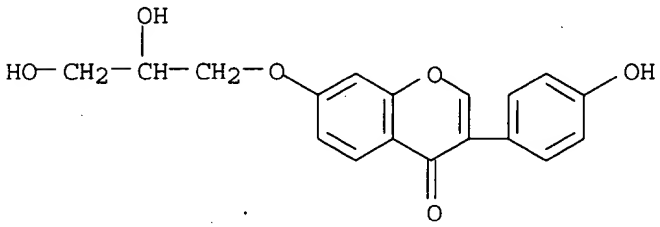
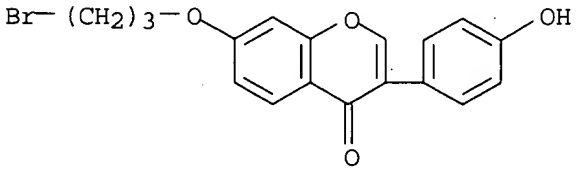
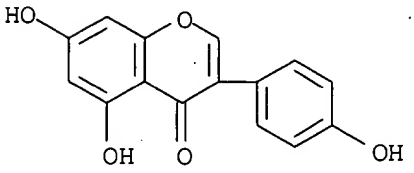


RN 309252-38-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(3-bromopropoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

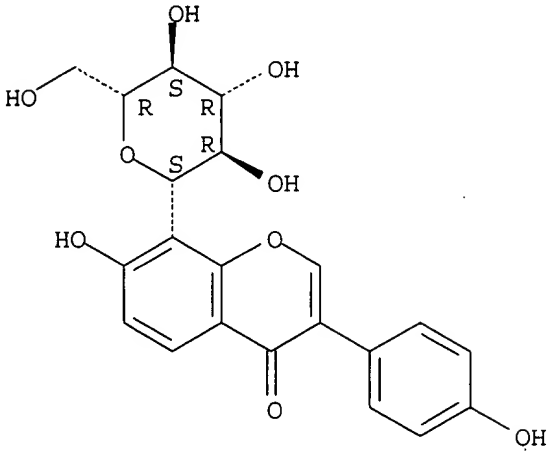


IT **446-72-0 3681-99-0**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(mitochondrial MAO-aldehyde dehydrogenase pathway: daidzin derivs. action site)
RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

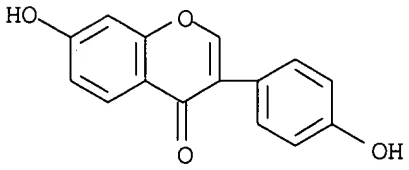
L17 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:173127 HCAPLUS
DOCUMENT NUMBER: 128:291383
TITLE: Daidzin and its antidipsotropic analogs inhibit serotonin and dopamine metabolism in isolated mitochondria
AUTHOR(S): Keung, Wing Ming; Vallee, Bert L.
CORPORATE SOURCE: Center for Biochemical and Biophysical Sciences and Medicine, Harvard Medical School, Boston, MA, 02115, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1998), 95(5), 2198-2203
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Daidzin, a major active principle of an ancient Chinese herbal treatment (Radix puerariae) for alc. abuse, selectively suppresses ethanol intake in all rodent models tested. It also inhibits mitochondrial aldehyde dehydrogenase (**ALDH-2**). Studies on ethanol intake suppression and in and **ALDH-2** inhibition by structural analogs of daidzin established a link between these two activities and suggested that daidzin may suppress ethanol intake by inhibiting **ALDH-2**. **ALDH-2** is a principal enzyme involved in serotonin (5-HT) and dopamine (DA) metabolism Thus, daidzin may act by inhibiting 5-HT and DA metabolism To evaluate this possibility, we have studied the effect of daidzin and its analogs on 5-HT and DA metabolism in isolated hamster and rat liver mitochondria. Daidzin potently inhibits the formation of 5-hydroxyindole-3-acetic acid (5-HIAA) and 3,4-dihydroxyphenylacetic acid (DOPAC) from their resp. amines in isolated mitochondria. Inhibition is concentration-dependent and is accompanied by a concomitant accumulation of 5-hydroxyindole-3-acetaldehyde and 3,4-dihydroxyphenylacetaldehyde. Daidzin analogs that suppress hamster ethanol intake also inhibit 5-HIAA and DOPAC formation. Comparing their

effects on mitochondria-catalyzed 5-HIAA or DOPAC formation and hamster ethanol intake reveals a pos. correlation-the stronger the inhibition on 5-HIAA or DOPAC formation, the greater the ethanol intake suppression. Daidzin and its active analogs, at concns. that significantly inhibit 5-HIAA formation, have little or no effect on mitochondria-catalyzed 5-HT depletion. It appears that the antidipsotropic action of daidzin is not mediated by 5-HT (or DA) but rather by its reactive intermediates 5-hydroxyindole-3-acetaldehyde and, presumably, 3,4-dihydroxyphenylacetaldehyde as well, which accumulates in the presence of daidzin.

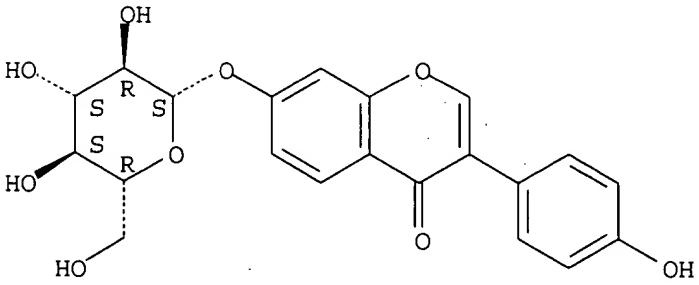
IT **486-66-8**, Daidzein **552-66-9**, Daidzin **3681-99-0**
, Puerarin **146698-97-7 146698-98-8 188881-56-3**
206051-01-6
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(daidzin and its antidipsotropic analogs inhibit serotonin and dopamine metabolism in isolated mitochondria)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



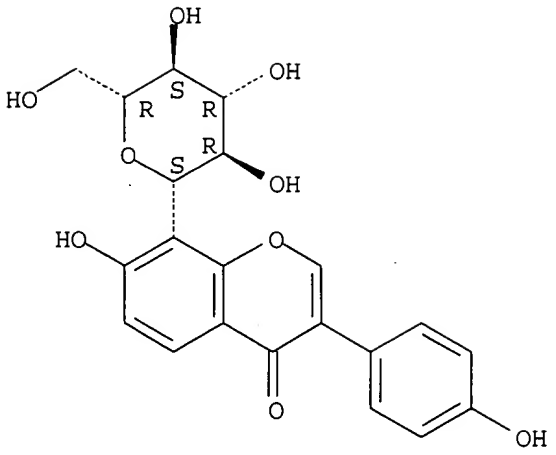
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

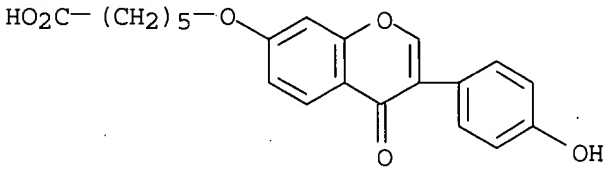


RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

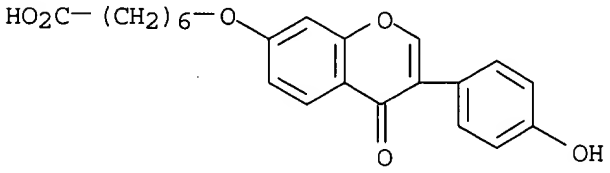
Absolute stereochemistry.



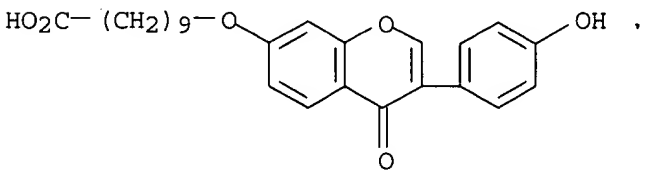
RN 146698-97-7 HCAPLUS
CN Hexanoic acid, 6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



RN 146698-98-8 HCAPLUS
CN Heptanoic acid, 7-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)

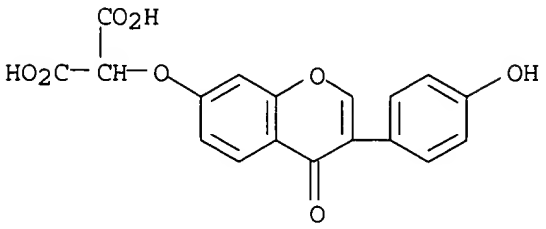


RN 188881-56-3 HCAPLUS
CN Decanoic acid, 10-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



RN 206051-01-6 HCAPLUS

CN Propanedioic acid, [[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

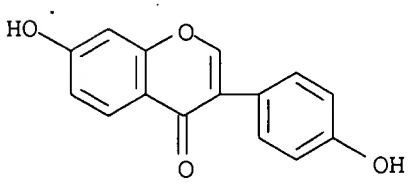
L17 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:172678 HCAPLUS
DOCUMENT NUMBER: 126:260370
TITLE: Daidzin inhibits mitochondrial aldehyde dehydrogenase and suppresses ethanol intake of Syrian golden hamsters
AUTHOR(S): Keung, Wing Ming; Klyosov, Anatole K.; Vallee, Bert L.
CORPORATE SOURCE: Cent. Biochemical Biophysical Sci. Med., Harvard Med. Sch., Boston, MA, 02115, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1997), 94(5), 1675-1679
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Daidzin is the major active principle in exts. of radix puerariae, a traditional Chinese medication that suppresses the ethanol intake of Syrian golden hamsters. It is the first isoflavone recognized to have this effect. Daidzin is also a potent and selective inhibitor of human mitochondrial aldehyde dehydrogenase (**ALDH-2**). To establish a link between these two activities, we have tested a series of synthetic structural analogs of daidzin. The results demonstrate a direct correlation between **ALDH-2** inhibition and ethanol intake suppression and raise the possibility that daidzin may, in fact, suppress ethanol intake of golden hamsters by inhibiting **ALDH-2**. Hamster liver contains not only mitochondrial **ALDH-2** but also high concns. of a cytosolic form, ALDH-1, which is a very efficient catalyst of acetaldehyde oxidation Further, the cytosolic isoenzyme is completely resistant to daidzin inhibition. This unusual property of the hamster ALDH-1 isoenzyme accounts for the fact we previously observed that daidzin can suppress ethanol intake of this species without blocking acetaldehyde metabolism Thus, the mechanism by which daidzin suppresses ethanol intake in golden hamsters clearly differs from that proposed for the classic ALDH inhibitor disulfram. We postulate that a physiol. pathway catalyzed by **ALDH-2**, so far undefined, controls ethanol intake of golden hamsters and mediates the antidipsotropic effect of daidzin.

IT **486-66-8**, Daidzein **552-66-9**, Daidzin **3681-99-0**, Puerarin **146698-96-6 146698-97-7 146698-98-8 146698-99-9 188881-56-3 188881-57-4 188881-58-5 188881-59-6 188881-60-9 188881-61-0 188881-62-1 188881-63-2**

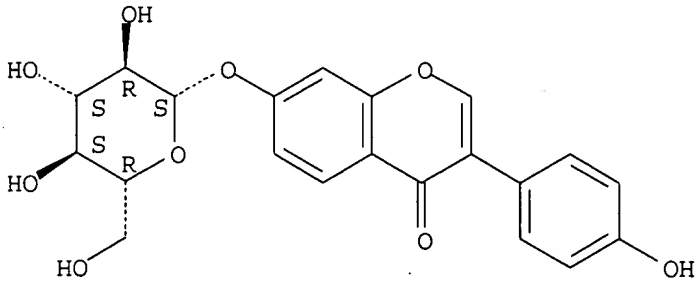
188881-64-3
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(daidzin derivs. inhibition of mitochondrial aldehyde dehydrogenase and ethanol intake)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



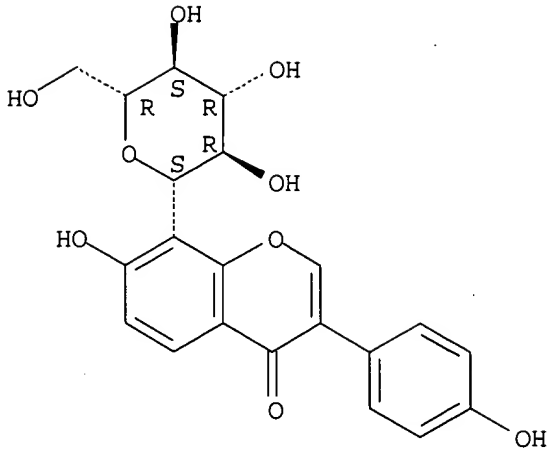
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

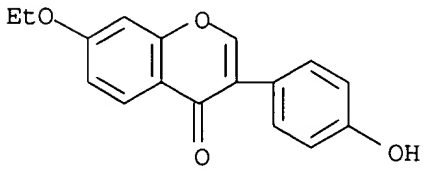


RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

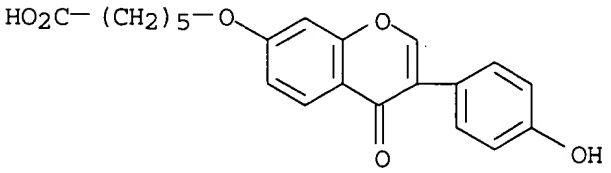
Absolute stereochemistry.



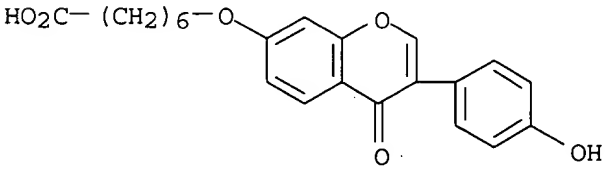
RN 146698-96-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-ethoxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 146698-97-7 HCAPLUS
CN Hexanoic acid, 6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)

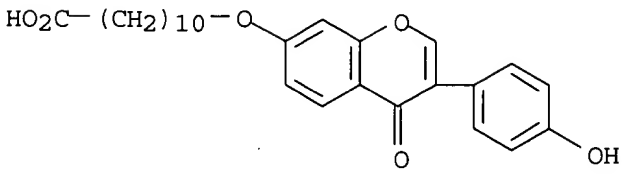


RN 146698-98-8 HCAPLUS
CN Heptanoic acid, 7-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)

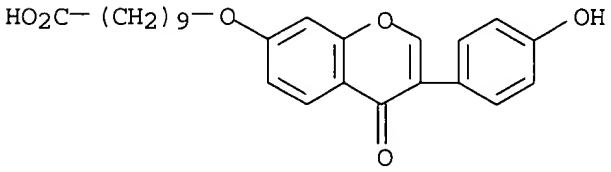


RN 146698-99-9 HCAPLUS

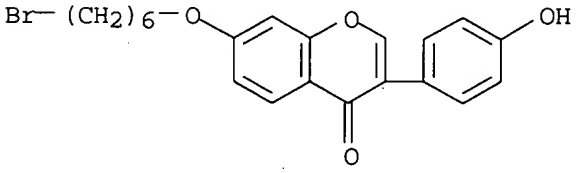
CN Undecanoic acid, 11-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



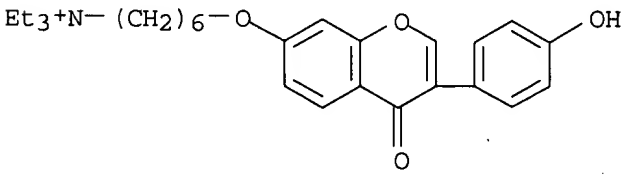
RN 188881-56-3 HCAPLUS
CN Decanoic acid, 10-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



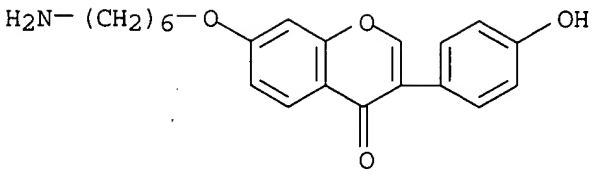
RN 188881-57-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-bromohexyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



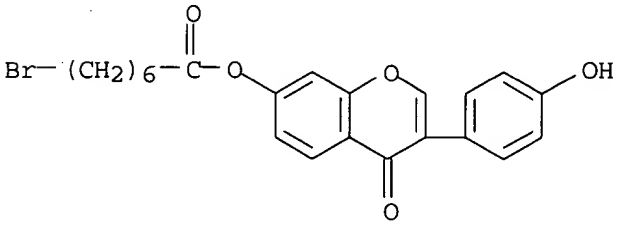
RN 188881-58-5 HCAPLUS
CN 1-Hexanaminium, N,N,N-triethyl-6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



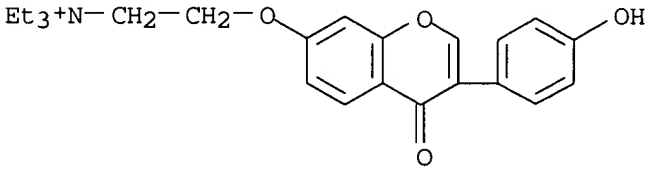
RN 188881-59-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-aminohexyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



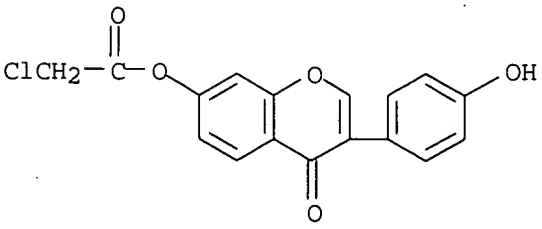
RN 188881-60-9 HCAPLUS
CN Heptanoic acid, 7-bromo-, 3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



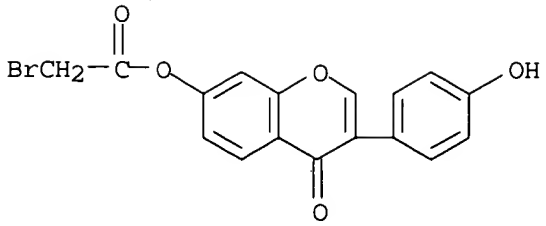
RN 188881-61-0 HCAPLUS
CN Ethanaminium, N,N,N-triethyl-2-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



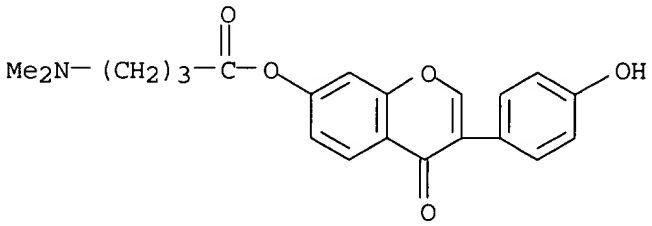
RN 188881-62-1 HCAPLUS
CN Acetic acid, chloro-, 3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



RN 188881-63-2 HCAPLUS
CN Acetic acid, bromo-, 3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



RN 188881-64-3 HCAPLUS
CN Butanoic acid, 4-(dimethylamino)-, 3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



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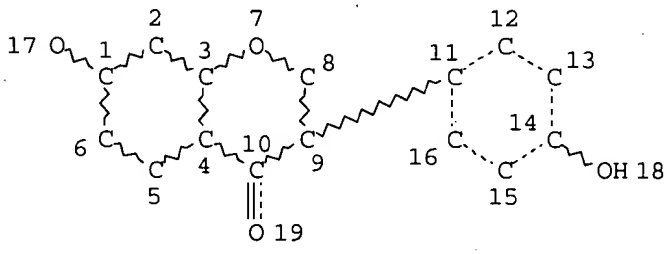
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE
L3 1168 SEA FILE=REGISTRY SSS FUL L1
L4 48 SEA FILE=REGISTRY ABB=ON PLU=ON ALDH2 OR ALDH(L)2
L6 27 SEA FILE=REGISTRY ABB=ON PLU=ON ALCOHOL DEHYDROGENASE 2?/CN
L10 3 SEA FILE=REGISTRY ABB=ON PLU=ON ("5-HYDROXYINDOLE-3-ACETIC ACID"/CN OR "5-HYDROXYINDOLE-3-ACETIC ACID GLUCURONIDE"/CN OR "5-HYDROXYINDOLE-3-ACETIC ACID O-GLUCURONIDE"/CN OR "5-HYDROXYINDOLE-3-ACETIC ACID SULFATE"/CN)
L11 10 SEA FILE=REGISTRY ABB=ON PLU=ON ("3,4-DIHYDROXYPHENYLACETIC ACID B-GLUCOSIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID

2,3-DIOXYGENASE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 3,4-DIHYDROXYANILIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 3,4-DIHYDROXYBENZYLAMIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 3,4-DIHYDROXYPHENETHYLAMIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID CYCLOHEXYLAMINE SALT"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID DIETHYLAMIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID ETHYL ESTER"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID GLUCURONIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID POLYMER"/CN)

L12 1 SEA FILE=REGISTRY ABB=ON PLU=ON 5-HYDROXYINDOLE-3-ACETALDEHYDE/CN

L13 16 SEA FILE=REGISTRY ABB=ON PLU=ON DIHYDROXYPHENYL (L) ACETALDEHYDE

L14 1 SEA FILE=REGISTRY ABB=ON PLU=ON HYDROXYINDOLE (L) ACETALDEHYDE

L15 6832 SEA FILE=HCAPLUS ABB=ON PLU=ON L3

L16 684 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 OR L4 OR ALDH2 OR ALDH (W)2 OR ALCOHOL (W) DEHYDROGENASE (W) 2

L17 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L16

L18 9710 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 OR L11 OR L12 OR L13 OR L14 OR (HYDROXYINDOL? OR DIHYDROXYPHENYL) (2A) (ACETIC (W) ACID OR ACETALDEHYDE)

L19 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L18

L20 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 NOT L17

=> d ibib abs hitstr l20 tot

L20 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:85810 HCAPLUS

DOCUMENT NUMBER: 139:122906

TITLE: Microemulsion electrokinetic chromatographic analysis of some polar compounds

AUTHOR(S): Siren, Heli; Karttunen, Anne

CORPORATE SOURCE: Technical Research Centre, VTT Processes, Espoo, FIN-02044, Finland

SOURCE: Journal of Chromatography, B: Analytical Technologies in the Biomedical and Life Sciences (2003), 783(1), 113-124
CODEN: JCBAAI; ISSN: 1570-0232

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

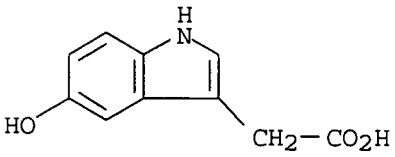
LANGUAGE: English

AB This study presents the optimization of a microemulsion electrokinetic chromatog. (MEEKC) electrolyte solution by using UV detection and with the method, simultaneous sepns. of chemical, biochem. and pharmaceutically related anionic and cationic compds. Representatives of the compound groups were from isoflavonoids, benzodiazepines, metanephrines, diuretics and peptide hormones. The MEEKC sepns. under basic conditions were first optimized using a two-component isoflavonoid mixture as the sample and an electrolyte containing 10 mM tetraborate as the main buffer (pH 9.5). The stable microemulsion phase was adjusted with various amts. of octane, 1-butanol and sodium dodecyl sulfate (SDS). An only acidified electrolyte solution used in the study was made of phosphoric acid (pH 1.8) containing octane, SDS and Et acetate. The analyses with isoflavonoids showed that electrophoretic mobilities of the investigated compds. were highly related to the concns. of SDS and 1-butanol with linear and parabolic correlation, resp. However, addition of octane gave linear correlation only at low concns. In most cases four to six structurally related compds. and even 13 diuretics with various polar properties were separated from each other in

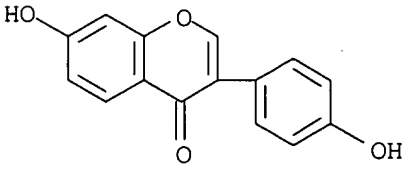
basic microemulsion medium. The acidified MEEKC electrolyte gave good resolution for anionic metanephrines.

IT **54-16-0**, 5-Hydroxyindoleacetic acid, analysis **486-66-8**, 7-Hydroxy-3-(4-hydroxyphenyl)-4H-1-benzopyran-4-one
RL: ANT (Analyte); ANST (Analytical study)
(determination of drugs by microemulsion electrokinetic chromatog.)

RN 54-16-0 HCAPLUS
CN 1H-Indole-3-acetic acid, 5-hydroxy- (9CI) (CA INDEX NAME)



RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:736472 HCAPLUS
DOCUMENT NUMBER: 131:333371
TITLE: Methods and assays useful in the treatment of alcohol dependence or alcohol abuse
INVENTOR(S): Vallee, Bert L.; Keung, Wing-Ming
PATENT ASSIGNEE(S): The Endowment for Research In Human Biology, Inc., USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9958124	A1	19991118	WO 1999-US10339	19990512

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

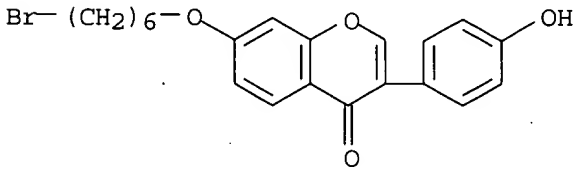
CA 2334830	AA	19991118	CA 1999-2334830	19990512
AU 9938991	A1	19991129	AU 1999-38991	19990512
US 6121010	A	20000919	US 1999-310614	19990512
EP 1077697	A1	20010228	EP 1999-921892	19990512
R: CH, DE, FR, GB, IT, LI, FI				
PRIORITY APPLN. INFO.:			US 1998-85148P	P 19980512
			WO 1999-US10339	W 19990512

AB A method for the treatment of alc. abuse using daidzin and compds. analogous to daidzin is disclosed. Also disclosed is a method for screening compds. having antidipsotropic activity.

IT **188881-57-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(methods and assays useful in treatment of alc. dependence or alc. abuse)

RN 188881-57-4 HCAPLUS

CN 4H-1-Benzopyran-4-one, 7-[(6-bromohexyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

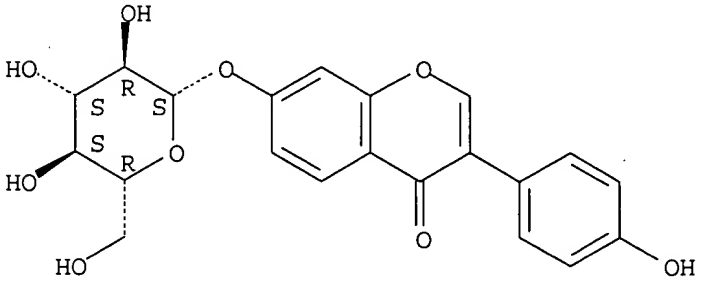


IT **552-66-9**, Daidzin **552-66-9D**, Daidzin, analogs
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(methods and assays useful in treatment of alc. dependence or alc. abuse)

RN 552-66-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

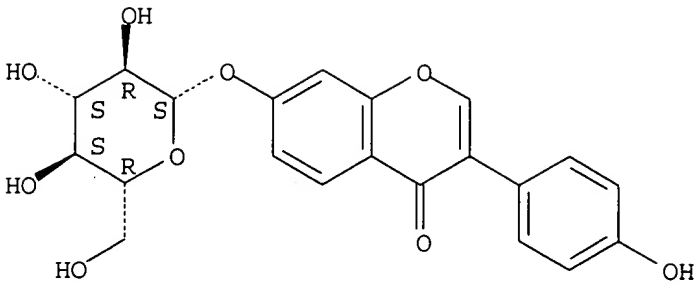
Absolute stereochemistry. Rotation (-).



RN 552-66-9 HCAPLUS

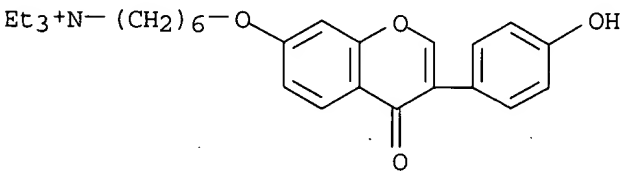
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

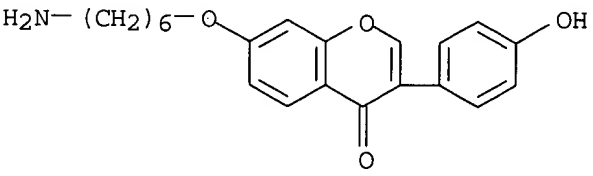


IT **188881-58-5P 188881-59-6P 188881-61-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(methods and assays useful in treatment of alc. dependence or alc. abuse)

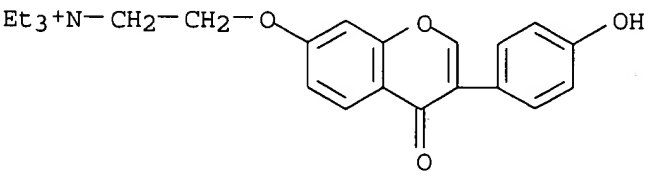
RN 188881-58-5 HCAPLUS
CN 1-Hexanaminium, N,N,N-triethyl-6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



RN 188881-59-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-aminohexyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



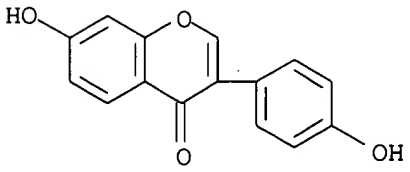
RN 188881-61-0 HCAPLUS
CN Ethanaminium, N,N,N-triethyl-2-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



IT **486-66-8**, Daidzein **3681-99-0**, Puerarin

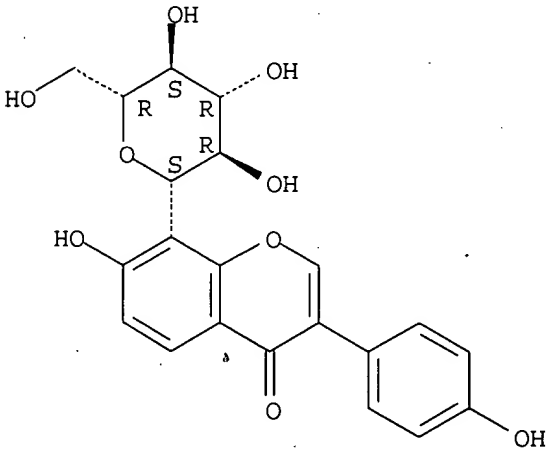
146698-96-6 146698-97-7 146698-98-8
146698-99-9 188881-56-3 188881-60-9
188881-62-1 188881-63-2 188881-64-3
250252-71-2 250252-72-3 250252-73-4
250252-74-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods and assays useful in treatment of alc. dependence or alc. abuse)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

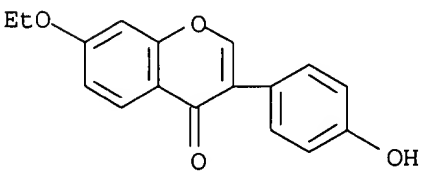


RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

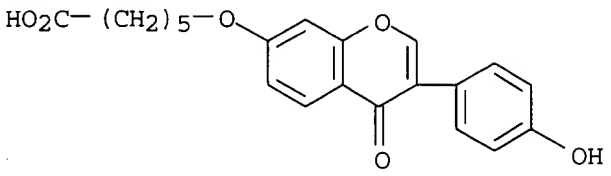
Absolute stereochemistry.



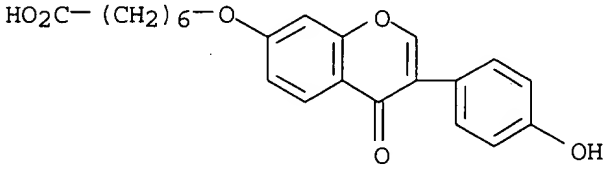
RN 146698-96-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-ethoxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



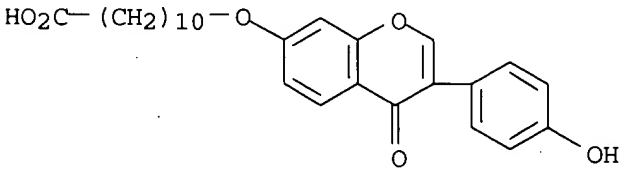
RN 146698-97-7 HCAPLUS
CN Hexanoic acid, 6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-
(9CI) (CA INDEX NAME)



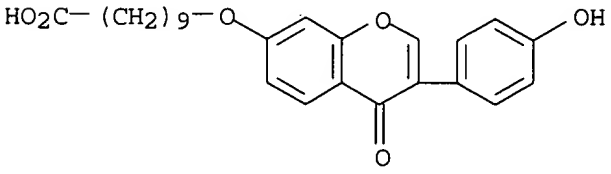
RN 146698-98-8 HCAPLUS
CN Heptanoic acid, 7-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-
(9CI) (CA INDEX NAME)



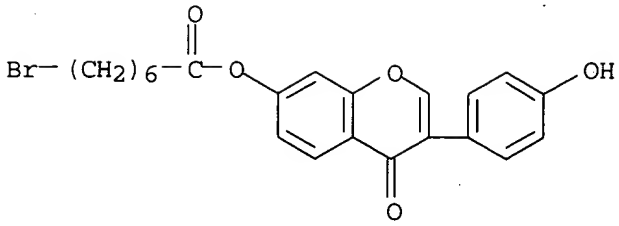
RN 146698-99-9 HCAPLUS
CN Undecanoic acid, 11-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-
(9CI) (CA INDEX NAME)



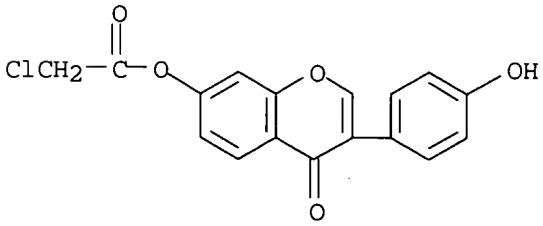
RN 188881-56-3 HCAPLUS
CN Decanoic acid, 10-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]-
(9CI) (CA INDEX NAME)



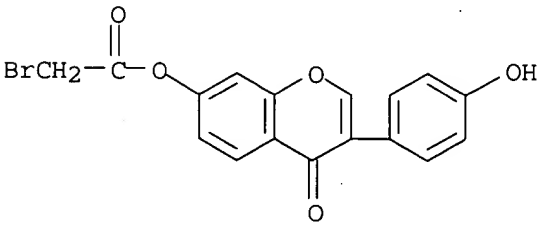
RN 188881-60-9 HCAPLUS
CN Heptanoic acid, 7-bromo-, 3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl
ester (9CI) (CA INDEX NAME)



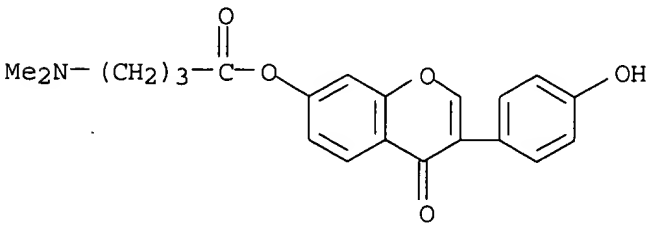
RN 188881-62-1 HCAPLUS
CN Acetic acid, chloro-, 3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



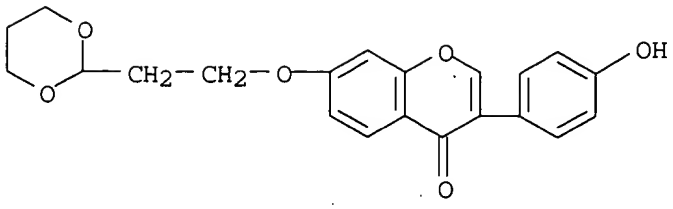
RN 188881-63-2 HCAPLUS
CN Acetic acid, bromo-, 3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



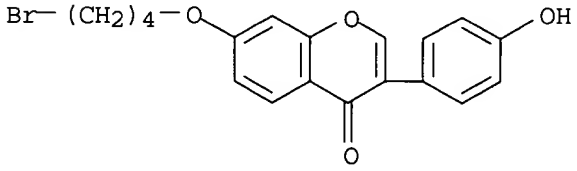
RN 188881-64-3 HCAPLUS
CN Butanoic acid, 4-(dimethylamino)-, 3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



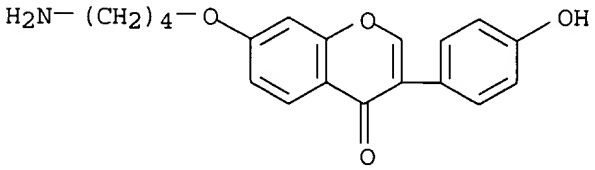
RN 250252-71-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[2-(1,3-dioxan-2-yl)ethoxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



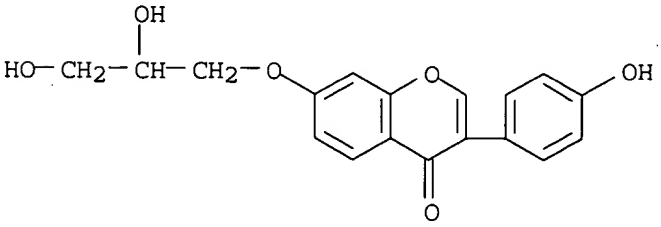
RN 250252-72-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(4-bromobutoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 250252-73-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(4-aminobutoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

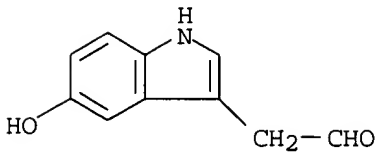


RN 250252-74-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(2,3-dihydroxypropoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

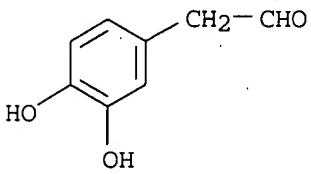


IT **1892-21-3**, 5-**Hydroxyindole**-3-**acetaldehyde**
5707-55-1, 3,4-Dihydroxyphenylacetaldehyde
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(methods and assays useful in treatment of alc. dependence or alc. abuse)
RN 1892-21-3 HCAPLUS

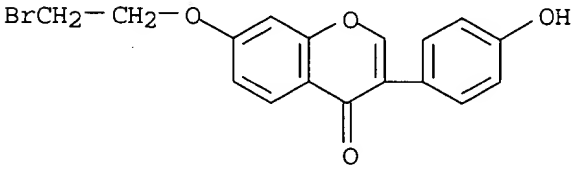
CN 1H-Indole-3-acetaldehyde, 5-hydroxy- (9CI) (CA INDEX NAME)



RN 5707-55-1 HCAPLUS
CN Benzeneacetaldehyde, 3,4-dihydroxy- (9CI) (CA INDEX NAME)



IT **250252-70-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(methods and assays useful in treatment of alc. dependence or alc. abuse)
RN 250252-70-1 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(2-bromoethoxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



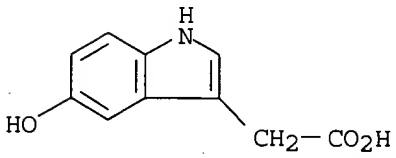
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:202795 HCAPLUS
DOCUMENT NUMBER: 114:202795
TITLE: A rapid, high-resolution high performance liquid chromatography profiling procedure for plant and microbial aromatic secondary metabolites
AUTHOR(S): Graham, Terrence L.
CORPORATE SOURCE: Dep. Plant Pathol., Ohio State Univ., Columbus, OH, 43210, USA
SOURCE: Plant Physiology (1991), 95(2), 584-93
CODEN: PLPHAY; ISSN: 0032-0889
DOCUMENT TYPE: Journal
LANGUAGE: English
AB High performance liquid chromatog. protocols have been developed to allow the simultaneous anal. of a very wide range of soluble aromatic secondary metabolites in unfractionated biol. exts. The methods are simple,

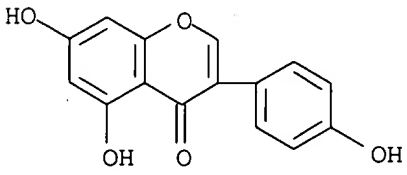
sensitive, and highly reproducible. They are applicable to a wide variety of natural product investigations in both plants and microorganisms. High resolution of metabolites is achieved in 25 min by chromatog. on a reverse phase C18 column in a gradient of 0 to 55% acetonitrile in water at pH 3. For example, near-baseline resolution of over 20 phenylpropanoid metabolites and 18 naturally occurring metabolites of indole-3-acetic acid can be obtained. The methods can be applied directly to whole tissue exts. without prepurifn. or enrichment. Moreover, the simplicity and sensitivity of the protocols allow their application to a large number of very small tissue samples, such as those encountered in research on host-microbe interactions. Such profiles allow one to monitor simultaneously the various alternative metabolic fates of a complex array of mols. Examination of the profiles over time thus provides one with a powerful tool to correlate many concurrent mol. events that may relate to a given biol. phenomenon. The final protocol requires as little as 1 mg of tissue, which is extracted directly in a microfuge tube in 80% ethanol. With a variable wavelength detector, as little as 100 fmol of a given metabolite can be analyzed. Examples of the application of the protocols to a number of plant and microbial secondary product investigations and to screening for flavonoid mutants of Arabidopsis thaliana are given.

IT **54-16-0**, analysis **446-72-0**, Genistein **486-66-8**
, Daidzein **529-59-9**, Genistin **552-66-9**, Daidzin
51011-05-3 124590-31-4
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of, high-performance liquid)

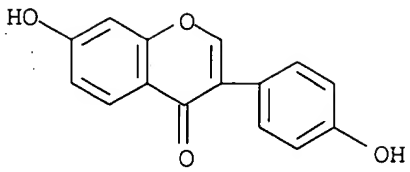
RN 54-16-0 HCAPLUS
CN 1H-Indole-3-acetic acid, 5-hydroxy- (9CI) (CA INDEX NAME)



RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

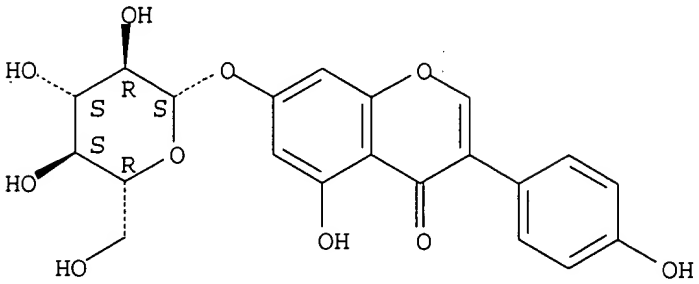


RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



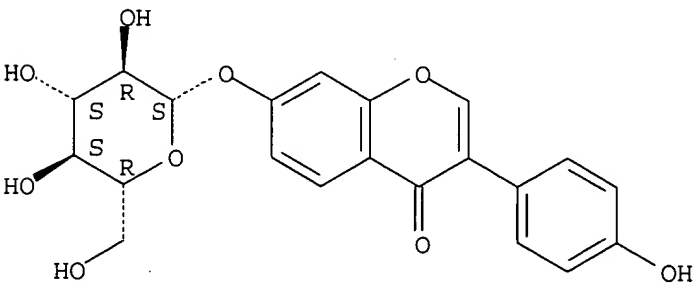
RN 529-59-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



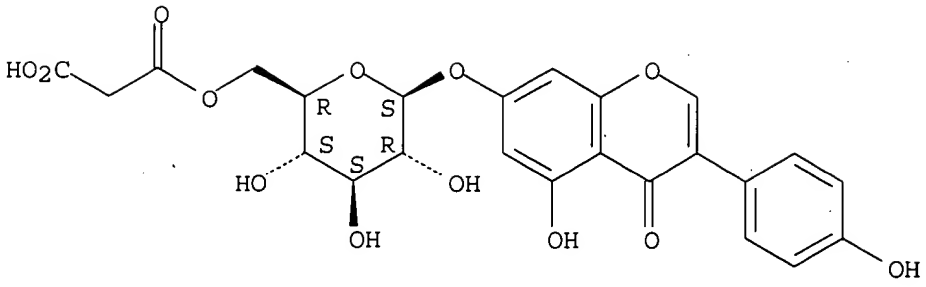
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



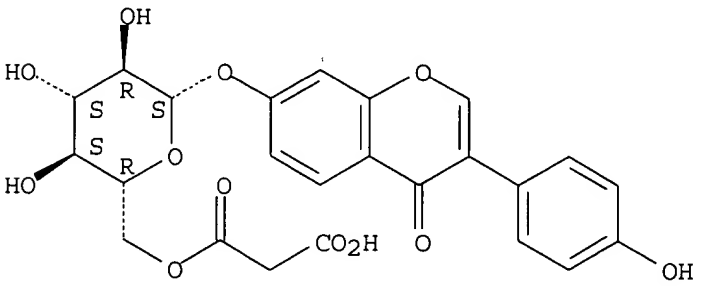
RN 51011-05-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 124590-31-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L20 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1959:14750 HCAPLUS
DOCUMENT NUMBER: 53:14750
ORIGINAL REFERENCE NO.: 53:2735e-i,2736a-d
TITLE: Paper chromatography and paper electrophoresis of phenols and glycosides
AUTHOR(S): Coulson, C. B.; Evans, W. C.
CORPORATE SOURCE: Univ. Coll. North Wales, Bangor
SOURCE: Journal of Chromatography (1958), 1, 374-9
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

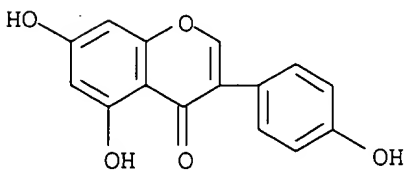
AB The following Rf values and spot colorations with diazotized p-nitroaniline spray were obtained by ascending chromatography on Whatman Number 4 paper with C6H6-AcOH-H2O (20:5:saturation) (solvent A) and BuOH-EtOH-borate buffer (9.54 g. Na2B4O7/1.) (1:1:1) (solvent B), resp.: pyrocatechol 0.43, cherry purple, 0.70, brown; homocatechol 0.56, red-purple, 0.72, brown-red; phloroglucinol. 0.00, yellow-orange, 0.87, reddish mustard yellow; resorcinol 0.12, yellow-orange, 0.94, mustard yellow; saligenin 0.62, crimson, 0.74, brown-yellow; 8-quinolinol 0.60, purple, -, -; 3,4-dihydroxy-ω-chloroacetophenone 0.21, pale yellow, 0.62, yellow; dinitrophenylglycine 0.71, -, 0.70, -; dinitrophenylethanolamine 0.88, -, 0.90, -; o-HOC6H4CO2H 1.00, bright red, 0.74, yellow-red; m-HOC6H4CO2H 0.50, scarlet, 0.68, red; p-HOC6H4CO2H 0.42, light crimson, 0.65, red; o-HOC6H4CH2CH2CO2H 0.70, mauve, 0.79, red-mauve; m-HOC6H4CH2CH2CO2H 0.55, pink, 0.76, bright crimson; p-HOC6H4CH2CH2CO2H 0.53, blue-purple, 0.73, blue-purple;

cis-o-HOC6H4CH:CHCO2H -, -, 0.81, purple; trans-o-HOC6H4CH:CHCO2H 0.65, bluish mauve, 0.74, purple; m-HOC6H4CH:CHCO2H 0.53, crimson, 0.70, crimson; p-HOC6H4CH:CHCO2H 0.50, bright blue, 0.66, blue-gray; o-hydroxyphenylglyoxylic acid 0.22, salmon, 0.83, salmon; p-hydroxyphenylpyruvic acid 0.44, purple, 0.70, purple; 2,3-(HO)2C6H3CO2H 0.43, cherry purple, 0.49, pale brown; 2,4-(HO)2C6H3CO2H 0.30, brown-mustard, 0.53, reddish brown; 2,5-(HO)2C6H3CO2H 0.20, yellow, 0.55-0.85, pale reddish brown; 2,6-(HO)2C6H3CO2H 0.16, yellow, 0.78, brown-gray; 3,4-(HO)2C6H3CO2H 0.08, cherry red, 0.30, brown; 3,5-(HO)2C6H3CO2H 0.02, bright yellow, 0.54, yellow; 2,3-(HO)2C6H3CH2CO2H 0.15, cherry purple, -, -; 2,5-(HO)2C6H3CH2CO2H (I) 0.03, brown, 0.65, white; 3,4-(HO)2C6H3CH2CO2H 0.05, cherry red, 0.39, light brown; 2,3-(HO)2C6H3CH2CH2CO2H 0.28, cherry purple, 0.45, medium orange; 2,5-(HO)2C6H3CH2CH2CO2H 0,09, brown, -, -; 3,4-(HO)2C6H3CH2CH2CO2H 0.13, cherry red, 0.42, quenched red; 2,5-(HO)2C6H3CH:CHCO2H 0.04, yellow, 0.4-0.6, pale brown; 3,4-(HO)2C6H3CH:CHCO2H 0.08, brownish purple, 0.40, gray-brown; 3,1,2-HOC6H3(CO2H)2, none, -, none; 4,1,2-HOC6H3(CO2H)2 0.02, bright crimson, 0.41, red; 3,4,1,2,(HO)2C6H2(CO2H)2 0.02, red, 0.20, quenched orange; 4,5,1,2-(HO)2C6H2(CO2H)2 0.01, pink, -, -; I lactone 0.03, light brown, streak, brown; 2,5-dihydroxyphenylpyruvic acid lactone 0.20, yellow-orange, 0.79, mustard yellow; 2,5-(HO)2C6H3CHO 0.63, pale yellow, 0.93, white; 3,4-(HO)2C6H3CHO 0.13, pale yellow, 0.62, white. Results were obtained in 8 and 18 hrs., resp., with solvents A and B. Sugars and related compds., chromatographed on paper buffered with borate buffer, with solvent B and alkaline AgNO3 to detect the spots, showed the following Rf values: arabinose 0.22, arbutin 0.72, ascorbic acid 0.28, erythritol 0.27, fructose 0.23, fucose 0.40, galactose 0.27, glucosamine 0.24-0.40, glucose 0.28, glucuronic acid lactone 0.20, inositol 0.24, mannitol. 0.30, quinic acid 0.42, raffinose 0.25, rhamnose 0.77, salicin 0.77, shikimic acid 0.27, sorbitol 0.29, sorbose 0.25, sucrose 0.42, xylose 0.23. Glycosides and aglycones chromatographed on buffer-impregnated paper in solvent B showed the following Rf values (ultraviolet light): quercetrin (II) 0.44, phlorizin 0.79, rutin (III) 0.29, d-catechol 0.45, fisetin 0.40, formononetin 0.91, genistein 0.86, khellin 0.92, morin 0.10, myricetin 0.15, quercetin (IV) 0.38, robinetin 0.12, tricin 0.50, dinitrophenylethanolamine 0.90, dinitrophenylglycine 0.70; II, III, and IV showed Rf 0.69, 0.29, and 0.25, resp., with BuOH-EtOH-Consden's borate buffer (Consden and Stanier C.A. 47, 664h). Many of these compds. were subjected to chromatographic techniques following horizontal paper electrophoresis, and the ratio of migration of substance to migration of dinitrophenylglycine is tabulated.

IT **446-72-0**, Genistein
(chromatography and electrophoresis of)

RN 446-72-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



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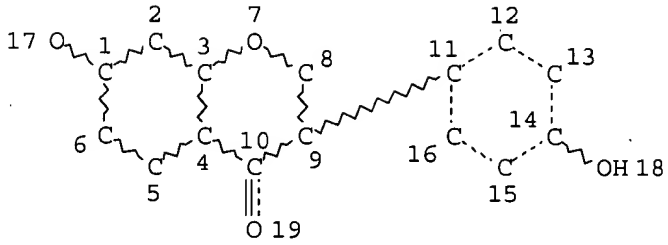


NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L3 1168 SEA FILE=REGISTRY SSS FUL L1
L4 48 SEA FILE=REGISTRY ABB=ON PLU=ON ALDH2 OR ALDH(L)2
L6 27 SEA FILE=REGISTRY ABB=ON PLU=ON ALCOHOL DEHYDROGENASE 2?/CN
L10 3 SEA FILE=REGISTRY ABB=ON PLU=ON ("5-HYDROXYINDOLE-3-ACETIC ACID"/CN OR "5-HYDROXYINDOLE-3-ACETIC ACID GLUCURONIDE"/CN OR "5-HYDROXYINDOLE-3-ACETIC ACID O-GLUCURONIDE"/CN OR "5-HYDROXYINDOLE-3-ACETIC ACID SULFATE"/CN)
L11 10 SEA FILE=REGISTRY ABB=ON PLU=ON ("3,4-DIHYDROXYPHENYLACETIC ACID B-GLUCOSIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 2,3-DIOXYGENASE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 3,4-DIHYDROXYANILIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 3,4-DIHYDROXYBENZYLAMIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 3,4-DIHYDROXYPHENETHYLAMIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID CYCLOHEXYLAMINE SALT"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID DIETHYLAMIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID ETHYL ESTER"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID GLUCURONIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID POLYMER"/CN)
L12 1 SEA FILE=REGISTRY ABB=ON PLU=ON 5-HYDROXYINDOLE-3-ACETALDEHYDE/CN
L13 16 SEA FILE=REGISTRY ABB=ON PLU=ON DIHYDROXYPHENYL (L) ACETALDEHYDE
L14 1 SEA FILE=REGISTRY ABB=ON PLU=ON HYDROXYINDOLE (L) ACETALDEHYDE
L15 6832 SEA FILE=HCAPLUS ABB=ON PLU=ON L3
L16 684 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 OR L4 OR ALDH2 OR ALDH(W)2 OR ALCOHOL (W) DEHYDROGENASE (W) 2
L17 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L16
L18 9710 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 OR L11 OR L12 OR L13 OR L14 OR (HYDROXYINDOL? OR DIHYDROXYPHENYL) (2A) (ACETIC (W) ACID OR ACETALDEHYDE)
L19 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L18
L20 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 NOT L17
L21 33 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 (L) (ALCOHOL?)
L22 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 NOT (L17 OR L20)

=> d ibib abs hitstr l22 tot

L22 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1014237 HCAPLUS
DOCUMENT NUMBER: 141:427767
TITLE: Skin compositions containing hardly-soluble components, and manufacture thereof
INVENTOR(S): Sakai, Yuji
PATENT ASSIGNEE(S): Pola Chemical Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

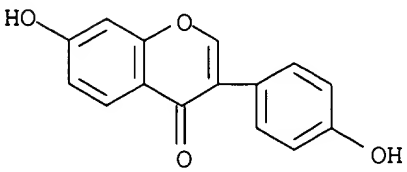
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004331593	A2	20041125	JP 2003-130921	20030509

PRIORITY APPLN. INFO.: JP 2003-130921 20030509

AB The invention relates to a skin composition characterized by containing a hardly-soluble component, e.g. ursolic acid derivative, and an alc. compound at 1-5 times of the hardly-soluble component, wherein the use of alc. improves the storage stability and bioavailability of the hardly-soluble component. A method for manufacturing the skin composition is also disclosed. An emulsion composition was prepared from wheat germ-derived phytosterol mix. 2, cetanol 5, stigmastanol maltoside 3, δ-tocopherol 0.1, decaglycerin monostearate 5, dipropylene glycol 10, glycerin 5, phenoxyethanol 1, and water 68.9 parts.

IT **486-66-8**, Daidzein
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(skin compns. containing hardly-soluble components, **alcs.** and surfactants, and manufacture thereof)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:955452 HCAPLUS
DOCUMENT NUMBER: 142:204673
TITLE: Composition containing natural products for reducing hangover of alcohol addiction by inhibiting alcohol dehydrogenase
INVENTOR(S): Lee, Gang Man; Lee, Hyeon Ju
PATENT ASSIGNEE(S): S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DOCUMENT TYPE: Patent

LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2002088243	A	20021127	KR 2001-27453	20010519

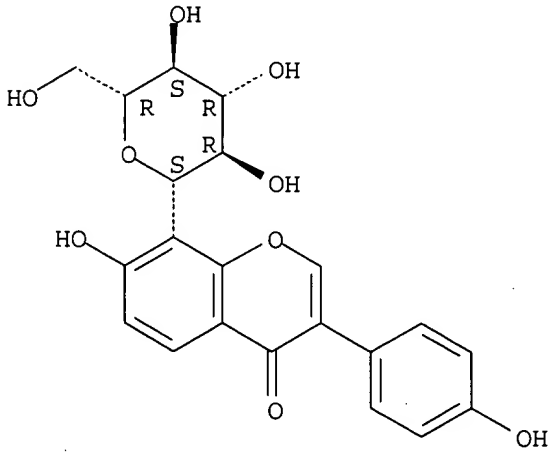
PRIORITY APPLN. INFO.: KR 2001-27453 20010519

AB A composition containing an effective active material induced from natural products capable of inhibiting activity of alc. dehydrogenase is provided which reduces cytotoxicity and inhibits hangover caused by consumption of alc. beverages by inhibition of the formation of aldehyde as a first metabolite in alc. metabolism thereof. The composition for reducing hangover contains as an effective ingredient one or more selected from Puerarin, mulberroside A, resveratrol, Rhaponticin, desoxyrhaponticin, rutin and quercetin. For an example, the Puerarin is separated from Pueraria thunbergiana (Sieb. et Zucc.) Benth., the mulberroside A is separated from Morus alba Linne, Rhaponticin and desoxyrhaponticin are separated from Rheum officinale Baillon.

IT **3681-99-0**, Puerarin
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(pharmaceutical compns. containing natural drug products for inhibiting **alc.** dehydrogenase)

RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

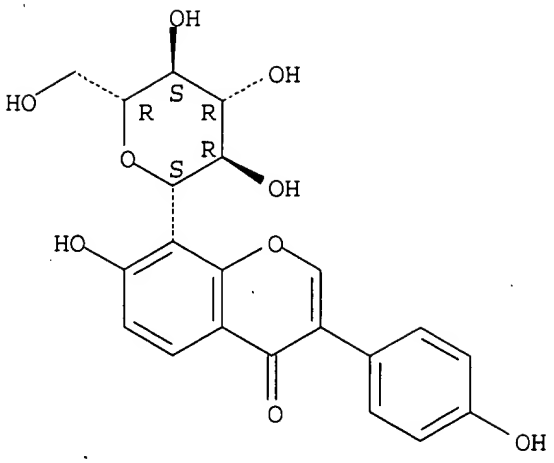
Absolute stereochemistry.



L22 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:630564 HCAPLUS
DOCUMENT NUMBER: 142:127245
TITLE: Effects of purified puerarin on voluntary alcohol intake and alcohol withdrawal symptoms in P rats receiving free access to water and alcohol
AUTHOR(S): Benlhabib, Elhabib; Baker, John I.; Keyler, Daniel E.; Singh, Ashok K.
CORPORATE SOURCE: Department of Veterinary Diagnostic Medicine, College

of Veterinary Medicine, University of Minnesota, St. Paul, MN, USA
SOURCE: Journal of Medicinal Food (2004), 7(2), 180-186
CODEN: JMFOFJ; ISSN: 1096-620X
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Alc. preferring (P) rats, given "free choice" of water, exhibited daily intake of 60-75 g of water/kg of body weight When given "free choice" of water and 15% ethanol, P rats consumed 7-13 g of alc./kg. Their water intake decreased proportionally to the alc. intake, but total fluid intake did not differ significantly. Alc. withdrawal after 50 days of alc. drinking caused withdrawal symptoms such as hypersensitivity, poor coordination, and tremors. A daily 50 mg/kg dose of puerarin (PU) caused approx. 50% suppression in alc. intake, but did not affect body weight and food and total fluid intake in P rats receiving "free choice" of water and 15% ethanol. Alc. ingestion gradually returned to the control level despite consistent PU intake. However, alc. intake following alc. withdrawal was suppressed in PU-fed P rats. PU suppressed the severity of alc. withdrawal symptoms. Thus, withdrawal symptoms do not occur in PU-fed rats even though their alc. ingestion is comparable to that in control P rats. Brain, plasma, and liver samples were analyzed for the presence of kudzu root isoflavones, which are mostly PU (>90% of total isoflavones) and a trace amount of daidzin. Liver samples obtained from PU-fed P rats contained 20-30 μg/g of PU. An important observation was that plasma or brain samples obtained from PU-fed or alc. + PU-fed rats did not contain PU. This study indicated that PU feeding transiently suppressed alc. intake and abolished withdrawal symptoms at a time when alc. intake had returned to the control level. The absence of PU in plasma and brain indicates the possibility that some nonspecific mechanism may be involved in the anti-alcoholism effects of PU in P rats.
IT **3681-99-0**, Puerarin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(puerarin transiently suppressed **alc.** intake, abolished withdrawal symptoms without entering brain or plasma, demonstrating anti-**alcoholism** effect in **alc.** preferring (P) rat receiving free access to water and **alc.**)
RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



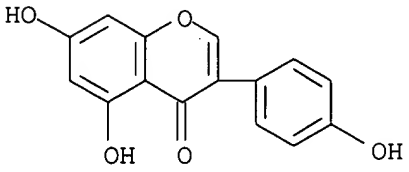
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:630563 HCAPLUS
DOCUMENT NUMBER: 142:127244
TITLE: Kudzu root extract suppresses voluntary alcohol intake and alcohol withdrawal symptoms in P rats receiving free access to water and alcohol
AUTHOR(S): Benlhabib, Elhabib; Baker, John I.; Keyler, Daniel E.; Singh, Ashok K.
CORPORATE SOURCE: Department of Veterinary Diagnostic Medicine, College of Veterinary Medicine, University of Minnesota, St. Paul, MN, USA
SOURCE: Journal of Medicinal Food (2004), 7(2), 168-179
CODEN: JMFOFJ; ISSN: 1096-620X
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Alc.-preferring (P) rats, given free choice to drink water or 15% alc., drank 7-10 g of alc./kg/day, giving blood alc. values ranging from 16 to 24 mg/dL. Body weight and food and total fluid intake values in control and alc.-drinking P rats did not differ significantly, while water intake was inversely related to the amount of alc. consumed. Alc. withdrawal after 50 days of alc. drinking caused withdrawal symptoms such as hypersensitivity, poor landing coordination, and tremors. A daily 0.5, 0.75, and 1.0 g/kg dose of kudzu root (KdR) did not affect body weight and food and water intake values in control (no alc.) P rats. Subchronic feeding of relatively higher KdR doses (0.75 and 1.0 g/kg) caused a 25-30% reduction in weight gain. The 0.5 g/kg KdR dose caused a 50-60% reduction in alc. consumption, abolished the development of alc. withdrawal symptoms, but did not affect blood alc. levels. The higher KdR doses did not further reduce alc. consumption. Alc. suppressed the weight-reducing effects of KdR. The KdR extract used in this study contained 150 mg/g of puerarin, 13 mg/g of daidzin, 4 mg/g of daidzein, 3 mg/g of genistin, 0.2 mg/g of genistein, and 1 mg/g of glycetin. Blood and liver samples contained mostly puerarin and a trace amount of daidzein that may have been formed by the hydrolysis of daidzin by liver enzymes. An important observation was that brain samples obtained from KdR-fed or alc. + KdR-fed rats did not contain any of the KdR isoflavones. Thus, KdR isoflavones suppressed alc. drinking and

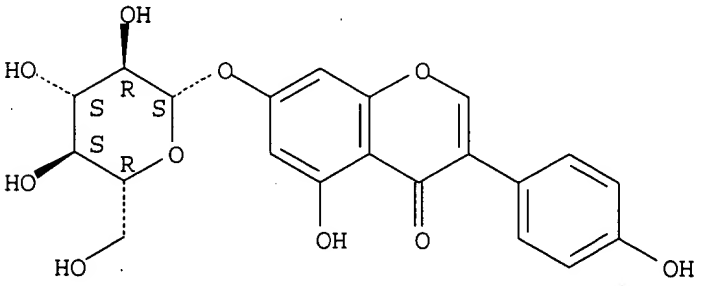
withdrawal symptoms without entering the brain.

IT **446-72-0**, Genistein
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(KdR extract containing small amount of genistein, suppressed **alc.** intake, withdrawal symptoms without entering brain, but blood, liver samples contained puerarin and daidzein in P rat receiving free access to water and **alc.**)
RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

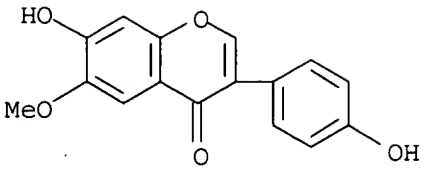


IT **529-59-9**, Genistin
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(KdR extract containing small amount of genistin, suppressed **alc.** intake, withdrawal symptoms without entering brain, but blood, liver samples contained puerarin and daidzein in P rat receiving free access to water and **alc.**)
RN 529-59-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

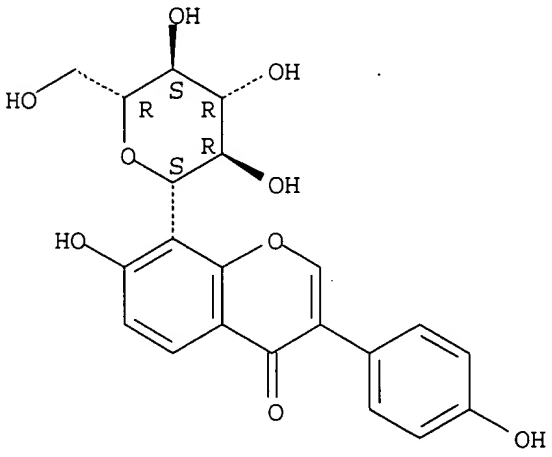


IT **40957-83-3**, Glycetein
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(KdR extract containing small amount of glycetein, suppressed **alc.** intake, withdrawal symptoms without entering brain, but blood, liver samples contained puerarin and daidzein in P rat receiving free access to water and **alc.**)
RN 40957-83-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)

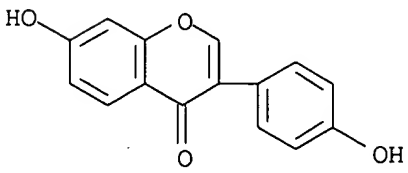


IT **3681-99-0**, Puerarin
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(KdR extract suppressed **alc.** intake, withdrawal symptoms without entering brain, but blood and liver samples contained isoflavones puerarin and trace amount of daidzein in P rat receiving free access to water and **alc.**)
RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

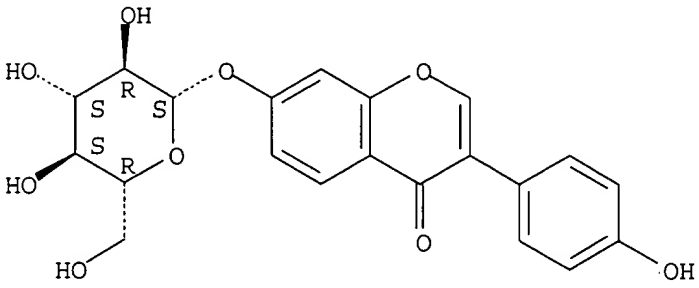


IT **486-66-8**, Daidzein **552-66-9**, Daidzin
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(KdR extract suppressed **alc.** intake, withdrawal symptoms without entering brain, but blood and liver samples contained trace amount of isoflavone daidzein formed by hydrolysis of daidzin in P rat receiving free access to water and **alc.**)
RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)-
(9CI) (CA INDEX NAME)

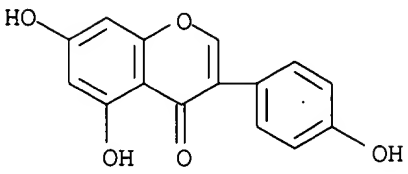
Absolute stereochemistry. Rotation (-).



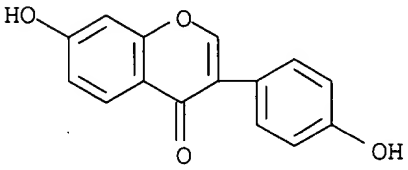
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:499545 HCAPLUS
DOCUMENT NUMBER: 142:88375
TITLE: Protein binding of isoflavones and enantiomers of perillyl alcohol to HSA studied using high-performance frontal analysis
AUTHOR(S): Song, Myong-Seok; Row, Kyung Ho
CORPORATE SOURCE: Center for Advanced Bioseparation Technology and Dept. of Chem Eng., Inha University, Nam-Ku, Incheon, 402-751, S. Korea
SOURCE: Kongop Hwahak (2004), 15(3), 334-340
CODEN: KOHWE9; ISSN: 1225-0112
PUBLISHER: Korean Society of Industrial and Engineering Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: Korean
AB High-performance frontal anal. (HPFA) was used for protein binding study of isoflavones (daidzein, genistin, and genistein) and enantiomers of perillyl alc. (S-POH, R-POH) to human serum albumin (HSA). The anal. was performed on a Develosil 100-Diol-5 (10 cm 4.6 mm I.D.) column. Sodium phosphate solution (pH 7.4, ionic strength 0.17) was used as the mobile phase at a flow rate of 1 mL/min. UV wavelength was set at 260 nm. To ensure the drug to be eluted as a trapezoidal peak with a plateau, injection vols. of 700 μL for daidzein and genistin, 900 μL for genistein were chosen, resp. Exptl. data were fitted by Scatchard anal. For isoflavones, the binding constant (K) and binding affinity (nK) to HSA were: K = 1.581105 (L/mol), nK = 0.77104 (L/mol) for daidzein; K = 1.082105 (L/mol), nK = 0.32104 (L/mol) for genistein; and K = 3.533105 (L/mol), nK = 0.70104 (L/mol) for genistin, resp. For enantiomers of perillyl alc., the binding constant (K) and binding affinity (nK) to HSA were: K = 5.20106 (L/mol), nK = 1.74104 (L/mol) for S-POH and K = 3.71106 (L/mol), nK = 1.51104 (L/mol) for R-POH, resp.
IT **446-72-0**, Genistein **486-66-8**, Daidzein **529-59-9**
, Genistin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(high-performance frontal anal. study of binding of isoflavones and enantiomers of perillyl **alc.** to human serum albumin)
RN 446-72-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

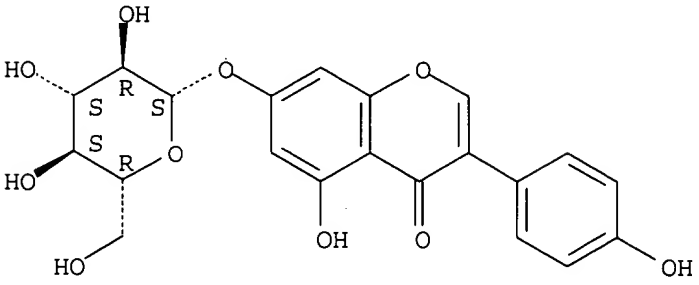


RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 529-59-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L22 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:704343 HCAPLUS
DOCUMENT NUMBER: 140:87384
TITLE: Anthracycline secondary alcohol metabolite formation in human or rabbit heart: biochemical aspects and pharmacologic implications
AUTHOR(S): Mordente, Alvaro; Minotti, Giorgio; Martorana, Giuseppe Ettore; Silvestrini, Andrea; Giardina, Bruno; Meucci, Elisabetta
CORPORATE SOURCE: Institute of Biochemistry and Clinical Biochemistry, Catholic University School of Medicine, Rome, 00168, Italy
SOURCE: Biochemical Pharmacology (2003), 66(6), 989-998
CODEN: BCPCA6; ISSN: 0006-2952
PUBLISHER: Elsevier Science B.V.

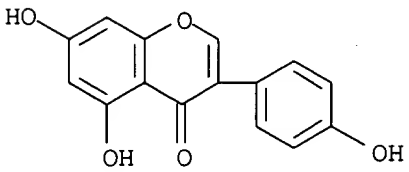
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Clin. use of the anticancer anthracyclines doxorubicin (DOX) and daunorubicin (DNR) is limited by development of cardiotoxicity upon chronic administration. Secondary alc. metabolites, formed after two-equivalent reduction of a carbonyl group in the side chain of DOX or DNR, have been implicated as potential mediators of chronic cardiotoxicity. In the present study we characterized how human heart converted DOX or DNR to their alc. metabolites DOXol or DNRol. Expts. were carried out using post-mortem myocardial samples obtained by ethically-acceptable procedures, and results showed that DOXol and DNRol were formed by flavin-independent cytoplasmic reductases which shared common features like pH-dependence and requirement for NADPH, but not NADH, as a source of reducing equivalent However, studies performed with inhibitors exhibiting absolute or mixed specificity toward best known cytoplasmic reductases revealed that DOX and DNR were metabolized to DOXol or DNRol through the action of distinct enzymes. Whereas DOX was converted to DOXol by aldehyde-type reductase(s) belonging to the superfamily of aldo-keto reductases, DNR was converted to DNRol by carbonyl reductase(s) belonging to the superfamily of short-chain dehydrogenase/reductases. This pattern changed in cardiac cytosol derived from rabbit, a laboratory animal often exploited to reproduce cardiotoxicity induced by anthracyclines and to develop protectants for use in cancer patients. In fact, only carbonyl reductases were involved in metabolizing DOX and DNR in rabbit cardiac cytosol, although with different Km and Vmax. Collectively, these results demonstrate that human myocardium convert DOX and DNR to DOXol or DNRol by virtue of different reductases, an information which may be of value to prevent alc. metabolite formation during the course of anthracycline-based anticancer therapy. These results also raise caution on the preclin. value of animal models of anthracycline cardiotoxicity, as they demonstrate that the metabolic routes leading to DOXol in a laboratory animal may not be the same as those occurring in patients.

IT **446-72-0**, Genistein
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anthracycline secondary **alc.** metabolite formation in human or rabbit heart)

RN 446-72-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:581225 HCAPLUS
DOCUMENT NUMBER: 140:53232
TITLE: NPI-031G (puerarin) reduces anxiogenic effects of alcohol withdrawal or benzodiazepine inverse or 5-HT2C

agonists

AUTHOR(S): Overstreet, David H.; Kralic, Jason E.; Morrow, A. Leslie; Ma, Zhong Z.; Zhang, Y. W.; Lee, David Y. W.
CORPORATE SOURCE: Skipper Bowles Center for Alcohol Studies, University of North Carolina School of Medicine, Chapel Hill, NC, 27599-7178, USA

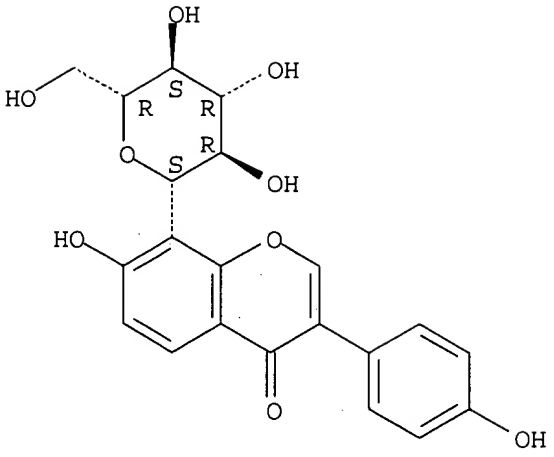
SOURCE: Pharmacology, Biochemistry and Behavior (2003), 75(3), 619-625
CODEN: PBBHAU; ISSN: 0091-3057
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Because exts. of kudzu have been used as a hangover remedy in China for many centuries, we tested the ability of NPI-031G (puerarin), an isoflavone isolated from kudzu, to counteract anxiogenic effects associated with withdrawal from chronic alc. exposure. NPI-031G (50 and 150 mg/kg i.p.) significantly increased the social interaction and locomotor activity reduced by withdrawal from 17 days of alc. (7%) diet. The effects of NPI-031G resembled those of the benzodiazepine antagonist, flumazenil (5 mg/kg), and the 5-HT2C antagonist, SB 242084 (1 mg/kg). In a sep. study, control rats were pretreated with NPI-031G (30 min) and then given the anxiogenic compds. DMCM, a benzodiazepine inverse agonist, or Ro 60 0175, a 5-HT2C agonist. NPI-031G significantly counteracted the reduction in social interaction induced by either compound To identify a potential mechanism of action of NPI-031G, synaptoneurosomes were isolated from the cerebral cortex of untreated rats and chloride uptake assays were carried out. NPI-031G did not have any effect on the stimulation of chloride uptake by muscimol, a GABA(A) agonist. However, it reduced the potentiation of muscimol-stimulated chloride uptake by flunitrazepam, a benzodiazepine agonist, at a concentration of 100 μM. A reduction in [3H]flunitrazepam binding was also seen at this concentration These findings are consistent with NPI-031G being a weak benzodiazepine site antagonist.

IT **3681-99-0**, Puerarin
RL: DMA (Drug mechanism of action); NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(NPI-031G reduces anxiogenic effects of **alc.** withdrawal or benzodiazepine inverse or 5-HT2C agonists)

RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

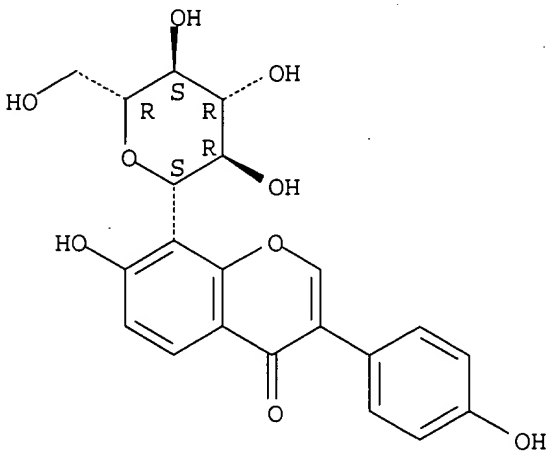
L22 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:404035 HCAPLUS
DOCUMENT NUMBER: 139:391156
TITLE: Study on effects of puerarin against memory impairment in mice induced by chronic alcoholism
AUTHOR(S): Xu, Xiaohong
CORPORATE SOURCE: College of Life and Environment Science, Zhejiang Normal University, Jinhua, 321004, Peop. Rep. China
SOURCE: Zhongguo Yaoxue Zazhi (Beijing, China) (2003), 38(1), 31-34
CODEN: ZYZAEU; ISSN: 1001-2494
PUBLISHER: Zhongguo Yaoxue Zazhishe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The improvement effects of puerarin (Pue) on impairment of learning-memory in mice induced by long-term administration of alc. were studied and its possible mechanism of action was analyzed. Chronic alcoholism was induced in mice by long-term i.g. administration of alc. for 4 wk. Meanwhile, the mice were treated with Pue, 20 or 100 mg kg-1 once daily for 4 wk. After the last treatment, learning-memory behavior was tested using Y-maze. Then the activity of superoxide dismutase (SOD) and the content of lipofuscin were measured by spectrophotometry and fluorospectrophotometer, resp. The synaptic interface structure of Gray I in CA3 area of hippocampus was quant. analyzed by electronic microscope and computer image processing appliance. Long-term administration of alc. caused impairment of learning-memory in mice, SOD activity declined, and the level of lipofuscin increased. It was found that Pue 100 mg kg-1 remarkably improved learning-memory ability of the mice, promoted the activity of SOD, decreased the content of lipofuscin, increased significantly the thickness of post-synaptic d. (PSD), and shortened the width of the synaptic cleft in hippocampus CA3 area. Pue showed an improvement effect against the memory impairment in mice induced by long-term administration of alc. Improvement of the antioxidase activity in brain and an alteration of synaptic interface structure of hippocampus might be related.

IT **3681-99-0**, Puerarin
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)
(effects of puerarin against memory impairment in mice induced by chronic **alcoholism**)
RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L22 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:355825 HCAPLUS
DOCUMENT NUMBER: 138:348732
TITLE: Compositions and methods for increasing compliance with therapies using aldehyde dehydrogenase inhibitors in the treatment of alcoholism
INVENTOR(S): Lederman, Seth
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003087814	A1	20030508	US 2002-287153	20021104
CA 2463987	AA	20030515	CA 2002-2463987	20021104
WO 2003039525	A1	20030515	WO 2002-US35376	20021104

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1441708 A1 20040804 EP 2002-789421 20021104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
PRIORITY APPLN. INFO.: US 2001-338901P P 20011105
WO 2002-US35376 W 20021104

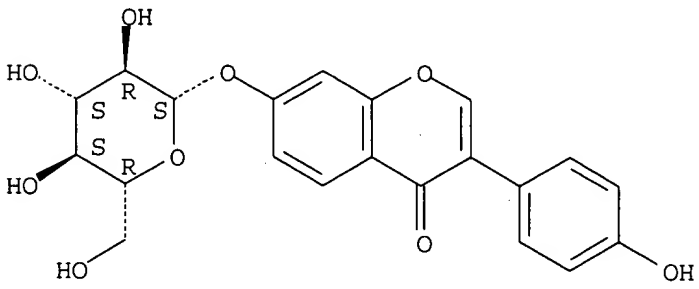
AB Compns. and methods for the treatment, prevention, or reducing alcoholism, in particular methods for increasing patient compliance with therapies that require the intake of an ALDH inhibitor comprising the step of administering a monoamine oxidase B inhibitor.

IT **552-66-9**, Daidzin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. and methods for increasing compliance with therapies using aldehyde dehydrogenase inhibitors in treatment of **alcoholism**)

RN 552-66-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L22 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:763445 HCAPLUS
DOCUMENT NUMBER: 138:331001
TITLE: Preclinical studies of kudzu (Pueraria lobata) as a treatment for alcohol abuse
AUTHOR(S): Keung, Wing Ming
CORPORATE SOURCE: Center for Biochemical and Biophysical Sciences and Medicine, Harvard Medical School, Boston, MA, 02115, USA
SOURCE: Medicinal and Aromatic Plants--Industrial Profiles (2002), 23(Pueraria), 144-158
CODEN: MAPPFL; ISSN: 1027-4502
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

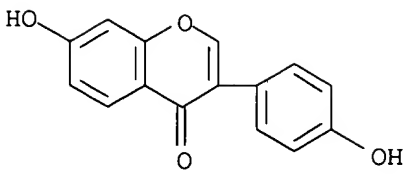
AB A review. The author to briefly discuss the conventional pharmaceuticals currently used for the treatment of alc. abuse/alcoholism and provide a detail account on the discovery of and recent progress on the pharmacol. and biochem. studies of the antidipsotropic action of Radix puerariae and its active principles.

IT **486-66-8**, Daidzein **552-66-9**, Daidzin
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preclin. studies of kudzu as treatment for **alc.** abuse)

RN 486-66-8 HCAPLUS

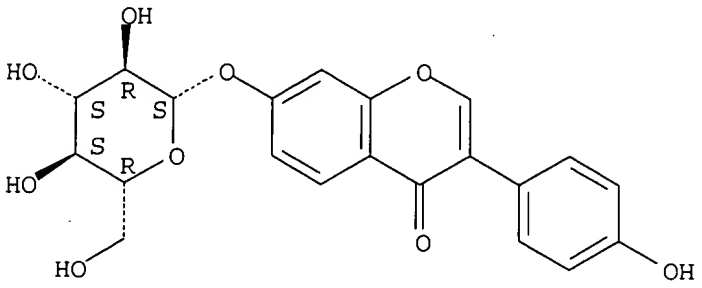
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX

NAME)



RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

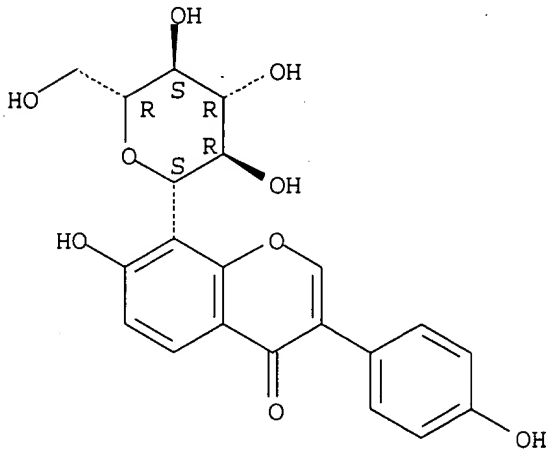
L22 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:212149 HCAPLUS
DOCUMENT NUMBER: 137:288926
TITLE: Studies on the screening of a bioactive compound acting on intracellular enzymes from natural products and its mode of action: inhibitory component of Puerariae Radix on alcohol dehydrogenase activity
AUTHOR(S): Lee, Hyun Joo; Oh, Min Ah; Choi, Young Hui; Lee, Kang Man
CORPORATE SOURCE: The Research Institute of Pharmaceutical Sciences and College of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Yakhak Hoechi (2001), 45(5), 500-505
CODEN: YAHOA3; ISSN: 0513-4234
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: Korean

AB Puerariae Radix is one of the medicinal plants used in oriental medicine for hangover. It has been claimed for several pharmacol. effects including anti-alc. abuse, antidipsotropic activity and anti-alc. intoxication. In connection with Puerariae Radix effects, and activity-guided purification of active substance on alc. dehydrogenase (ADH) was carried out. The most active compound was isolated as puerarin (C21H20O9), mol. weight 416. Puerarin inhibited ADH noncompetitively against ethanol or NAD+.

IT **3681-99-0**, Puerarin
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); BIOL

(Biological study); OCCU (Occurrence)
(Puerariae radix extract inhibitory effect on **alc.** dehydrogenase activity)
RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L22 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:885751 HCAPLUS
DOCUMENT NUMBER: 136:1825
TITLE: Method for treating alcohol intoxication and alcohol abuse
INVENTOR(S): Lukas, Scott; Lee, David Yue-We
PATENT ASSIGNEE(S): The Mclean Hospital Corporation, USA
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001091746	A1	20011206	WO 2001-US17811	20010531
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002022634	A1	20020221	US 2001-871760	20010531
US 6465436	B2	20021015		

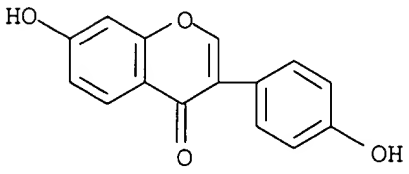
PRIORITY APPLN. INFO.: US 2000-208618P P 20000601

AB Treatment for alc. dependence or intoxication that involves administering a pharmaceutical composition containing an extract of the kudzu plant, Pueraria

lobata.

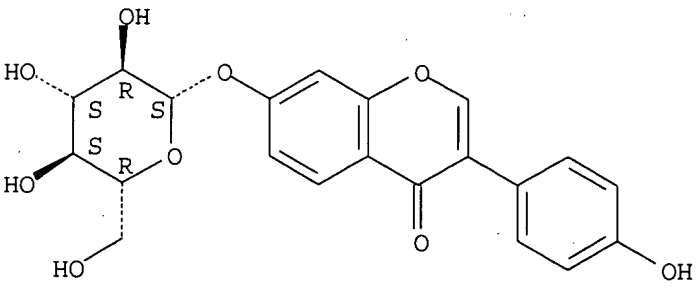
IT **486-66-8**, Daidzein **552-66-9**, Daidzin **3681-99-0**
, Puerarin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for treating **alc.** intoxication and **alc.**
abuse)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



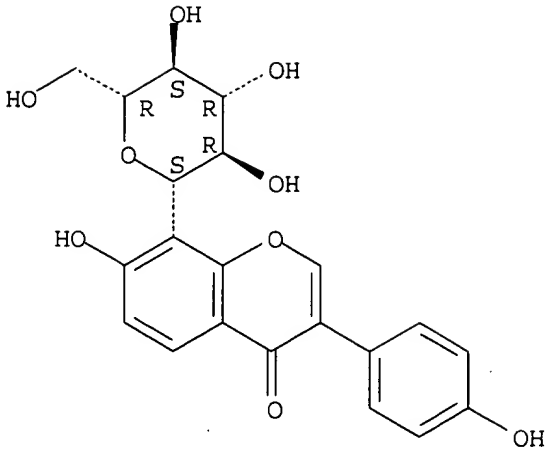
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:829320 HCAPLUS
DOCUMENT NUMBER: 136:65544
TITLE: Acute Alcohol-induced Protection against Infarction in Rabbit Hearts: Differences from and Similarities to Ischemic Preconditioning
AUTHOR(S): Krenz, Maike; Baines, Christopher P.; Heusch, Gerd; Downey, James M.; Cohen, Michael V.
CORPORATE SOURCE: Department of Physiology, University of South Alabama, Mobile, AL, USA
SOURCE: Journal of Molecular and Cellular Cardiology (2001), 33(11), 2015-2022
CODEN: JMCDAY; ISSN: 0022-2828
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

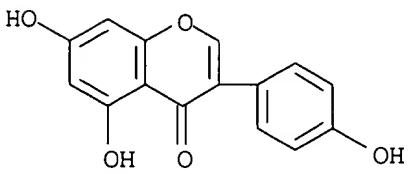
AB Recent studies reveal that brief ethanol exposure induces cardioprotection against simulated ischemia in cardiomyocytes by the activation of protein kinase C- ε. The present study tests the ability of ethanol to induce protection in rabbit hearts in which infarct size was the end-point and explores the signal transduction pathways involved. In isolated rabbit hearts, 50 mM ethanol infused for 5 min with 10 min of washout prior to 30 min of regional ischemia reduced infarct size (triphenyltetrazolium chloride staining) by 49%. Neither adenosine receptor blockade with 8-(p -sulfophenyl) theophylline nor the free radical scavenger N-2-mercaptopropionyl glycine inhibited the protection triggered by ethanol. In contrast, protein kinase C inhibition with chelerythrine, protein tyrosine kinase inhibition with genistein, and blockade of ATP-sensitive potassium channels (KATP) with either 5-hydroxydecanoate or glibenclamide did abolish protection. Thus, transient ethanol exposure followed by washout prior to ischemia elicits a preconditioning-like effect involving protein kinase C, at least one protein tyrosine kinase, and KATPchannels, but neither adenosine nor free radicals. (c) 2001 Academic Press.

IT **446-72-0**, Genistein
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(**alc.**-induced protection against infarction in rabbit hearts and differences from and similarities to ischemic preconditioning in relation to free radicals and oxidative stress)

RN 446-72-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:171062 HCAPLUS

DOCUMENT NUMBER: 133:42718

TITLE: Serum and urinary isoflavonoids and their metabolites in elderly men on diets supplemented with beverages containing untreated and alcohol-extracted soy protein

AUTHOR(S): Smith, M.; Kirk, M.; Weiss, H.; Irwin, W.; Markiewicz, M. A.; Urban, D.; Grizzle, W. E.; Barnes, S.

CORPORATE SOURCE: Departments of Pathology, Pharmacology and Toxicology, University of Alabama, Birmingham, AL, USA

SOURCE: Journal of Medicinal Food (1999), 2(3-4), 219-222
CODEN: JMFOFJ; ISSN: 1096-620X

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal

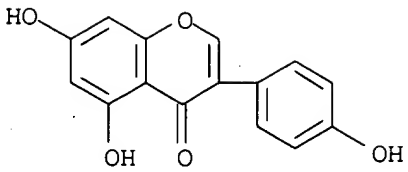
LANGUAGE: English

AB Elderly male patients with blood serum prostate-specific antigen (PSA) values of ≥ 4 ng/mL were randomly assigned to 1 of 2 isolated soy protein (ISP) beverages; 1 of the soy beverages contained a normal complement of isoflavones (ISP+), the other (ISP-) was extensively depleted (> 95%) of genistein (GEN) and daidzein (DZN) by alc. extraction At the end of a 6-wk period of consumption, each subject was switched to the other beverage for a further 6-wk period. ISP+ taken either in the 1st or 2nd 6-wk period caused a 25- to 30-fold increase in serum and urine concns.; ISP- also increased serum and urine concns. (3-fold), compared with the control period. GEN was retained in the blood to a greater extent than DZN and its metabolites dihydrodaidzein (DHD) and o-desmethylangolensin (o-DMA). The urinary excretion of DHD was the most rapid of all forms. The urinary clearance rate of GEN was 2-6 + lower than that of DZN, DHD, and o-DMA and similar to that of equol.

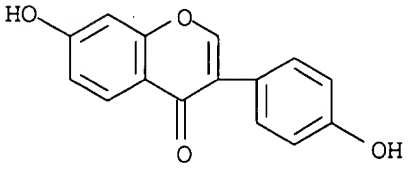
IT **446-72-0**, Genistein **486-66-8**, Daidzein
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(serum and urinary isoflavonoids and their metabolites in elderly men on diets supplemented with beverages containing untreated and **alc**.-extracted soy protein)

RN 446-72-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

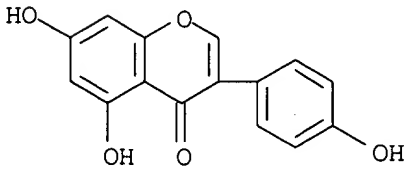
L22 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:378134 HCAPLUS
DOCUMENT NUMBER: 131:72953
TITLE: Manufacture of aglycon isoflavone-enriched plant protein whey, whey proteins, aglycon isoflavones, genistein-rich substances, daidzein-rich substances, and their manufacture from plant protein whey
INVENTOR(S): Shen, Jerome; Roussey, Mark A.; Bryan, Barbara A.; Allred, Maryann C.
PATENT ASSIGNEE(S): Proteine Technologies International Inc., USA
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
JP 11155592	A2	19990615	JP 1997-300299		19971031
US 5827682	A	19981027	US 1996-730171		19961015
PRIORITY APPLN. INFO.:			US 1996-730171	A	19961015
			US 1995-477102	B2	19950607

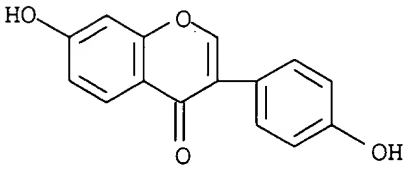
AB The process, for manufacture of aglycon isoflavone-enriched whey, involves (1) treating plant protein whey containing isoflavone complexes at a certain temperature and pH for a long enough time to convert the isoflavone complexes into isoflavone glycosides and (2) treating the isoflavone glycosides in the whey with enzymes at a certain temperature and pH for a long enough time to convert most of the glycosides into aglycon isoflavones. The whey and substances with high contents of aglycon isoflavones, e.g. genistein and daidzein from soybean, are useful for health foods.
IT **446-72-0P**, Genistein **486-66-8P**, Daidzein
40957-83-3P, Glycitein

RL: BMF (Bioindustrial manufacture); FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(manufacture of aglycon isoflavone-enriched plant (e.g. soybean) protein whey with enzymes and optional **alc.** extraction and adsorption for health food)

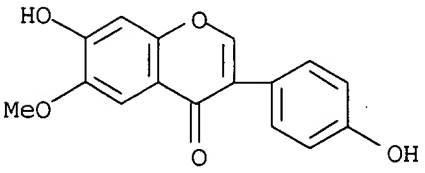
RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



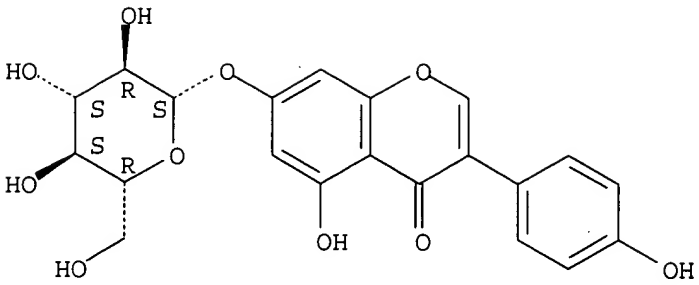
RN 40957-83-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)



IT **529-59-9P**, Genistin **552-66-9P**, Daidzin
40246-10-4P, Glycitin
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture of aglycon isoflavone-enriched plant (e.g. soybean) protein whey with enzymes and optional **alc.** extraction and adsorption for health food)

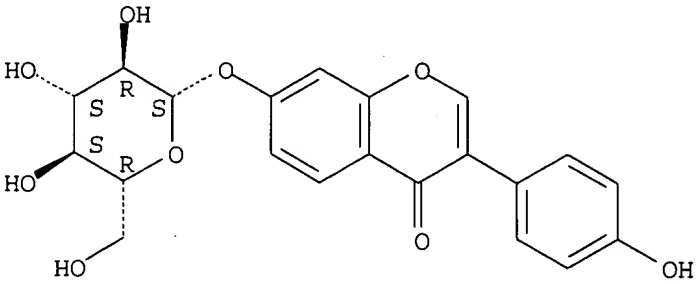
RN 529-59-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



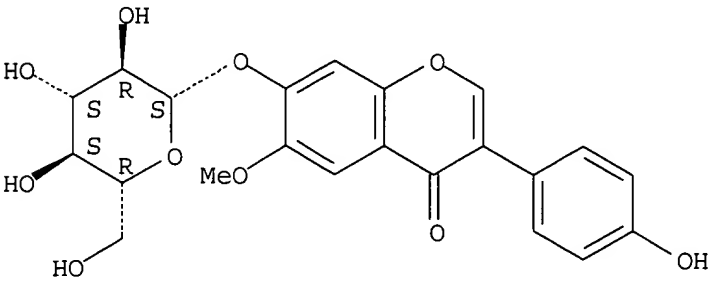
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



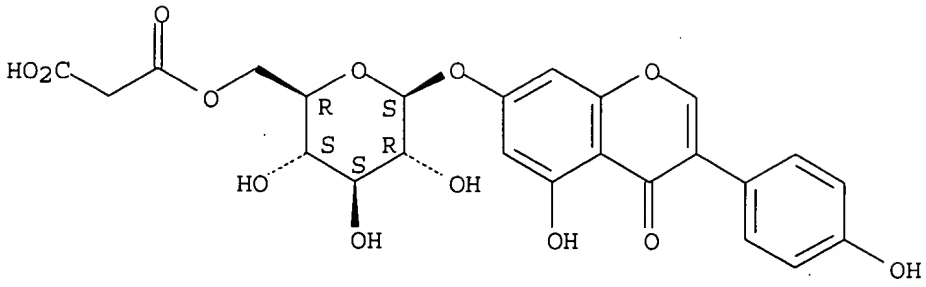
RN 40246-10-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)-
6-methoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



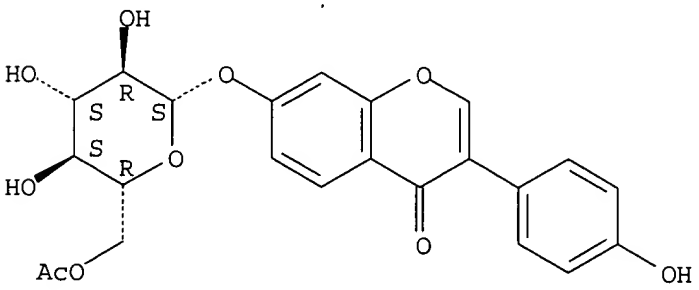
IT **51011-05-3**, 6''-O-Malonylgenistin **71385-83-6**
73566-30-0 124590-31-4, 6''-O-Malonyldaidzin
137705-39-6, 6''-O-Malonylglycitin
RL: RCT (Reactant); RACT (Reactant or reagent)
(manufacture of aglycon isoflavone-enriched plant (e.g. soybean) protein whey with enzymes and optional **alc.** extraction and adsorption for health food)
RN 51011-05-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



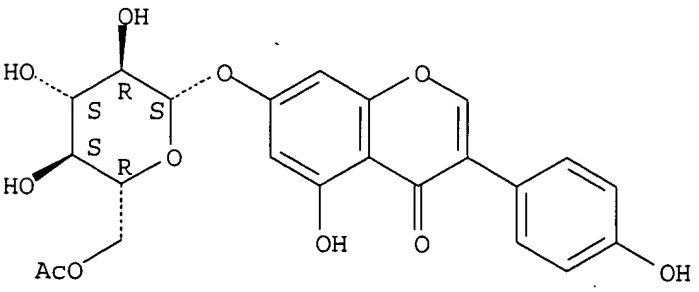
RN 71385-83-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-O-acetyl-β-D-glucopyranosyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



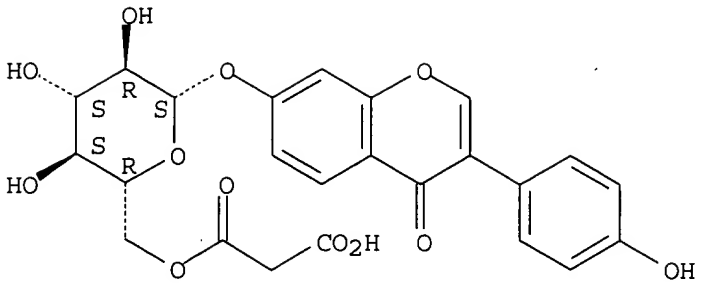
RN 73566-30-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-O-acetyl-β-D-glucopyranosyl)oxy]-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



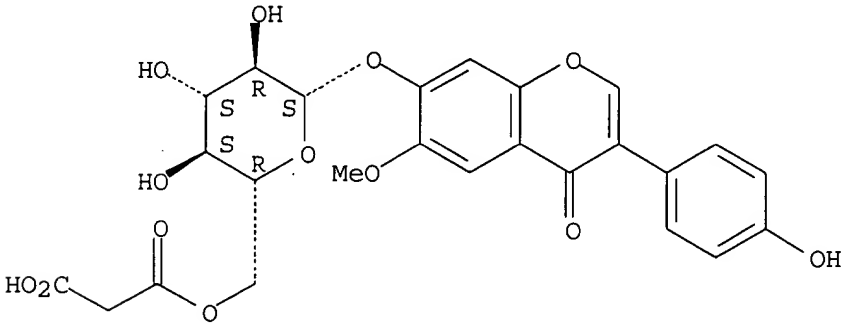
RN 124590-31-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 137705-39-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



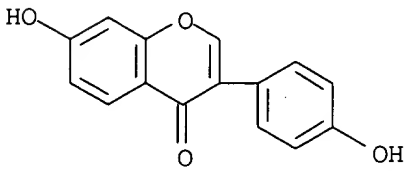
L22 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:789683 HCAPLUS
DOCUMENT NUMBER: 130:148107
TITLE: Effects of isoflavones on alcohol pharmacokinetics and alcohol-drinking behavior in rats
AUTHOR(S): Lin, Renee C.; Li, Ting-Kai
CORPORATE SOURCE: Departments of Medicine and Biochemistry/Molecular Biology, Veterans Affairs Medical Center, Indiana University School of Medicine, Indianapolis, IN, USA
SOURCE: American Journal of Clinical Nutrition (1998), 68(6, Suppl.), 1512S-1515S
CODEN: AJCNAC; ISSN: 0002-9165
PUBLISHER: American Society for Clinical Nutrition
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review, with 10 refs. Puerarin, daidzin, and daidzein are 3 major isoflavonoid compds. isolated from Pueraria lobata, an edible vine used widely in China for various medicinal purposes. We studied the antiinebriation and the antidipsotropic effects of these antioxidants in rats. Daidzin and daidzein shortened alc.-induced sleep time (loss of righting reflex) in rats that were given ethanol intragastrically but not in those given ethanol i.p. When daidzin was given to animals intragastrically with the ethanol solution, the blood alc. concentration (BAC) was found to peak later and be lower than in control rats that were given only the ethanol solution BACs also receded more slowly if daidzin was fed to the

animals. None of the 3 isoflavonoid compds. administered orally affected liver alc. dehydrogenase or aldehyde dehydrogenase activities, as was reported for i.p. administration. Further expts. indicated that the suppression of the BAC by daidzin was due mainly to delay of stomach emptying. All 3 compds. suppressed voluntary alc. consumption in alc.-preferring rats. The decrease in alc. consumption was accompanied by an increase in water intake, so that the total volume of liquid consumed daily remained unchanged. Daily food consumption and body weight gain were not affected. Alc. preference returned to baseline levels after the isoflavonoids were discontinued. We postulate that the suppression of alc. reinforcement produced by these compds. is mediated centrally in the brain reward pathway.

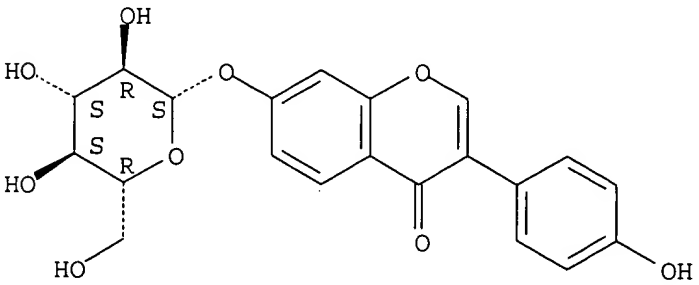
IT **486-66-8**, Daidzein **552-66-9**, Daidzin **3681-99-0**
, Puerarin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(effects of isoflavones on **alc.** pharmacokinetics and **alc.**-drinking behavior in rats)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



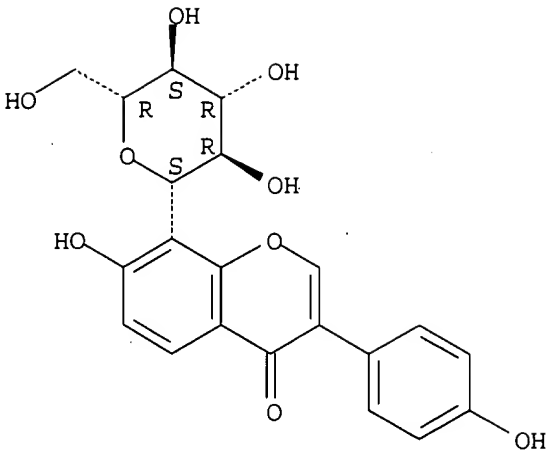
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:735082 HCAPLUS
DOCUMENT NUMBER: 130:1279
TITLE: Safe pharmaceutical composition for treating and preventing alcohol abuse and increasing immune function
INVENTOR(S): Liu, Yaguang
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

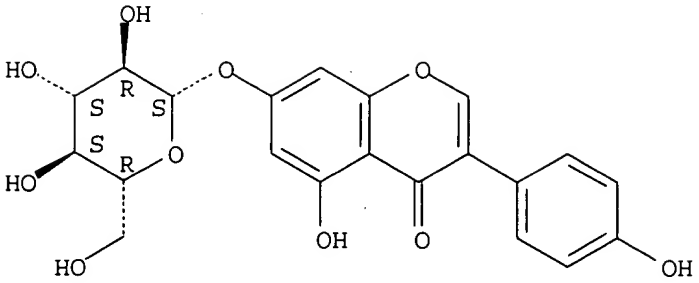
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5834605	A	19981110	US 1997-888536	19970707
PRIORITY APPLN. INFO.:			US 1997-888536	19970707

AB The safe pharmaceutical composition and processed are provided for treating and preventing alc. abuse and increasing immune function. The pharmaceutical composition is composed of puerarin derivs., which includes puerarin, daidzein or Genistia.

IT **529-59-9P**, Genistin **552-66-9P**, Daidzin
3681-99-0DP, Puerarin, derivs.
RL: ANT (Analyte); PUR (Purification or recovery); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(pharmaceutical composition for treating and preventing **alc.** abuse and increasing immune function)

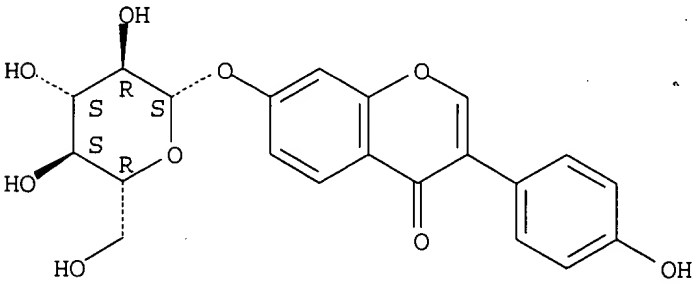
RN 529-59-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



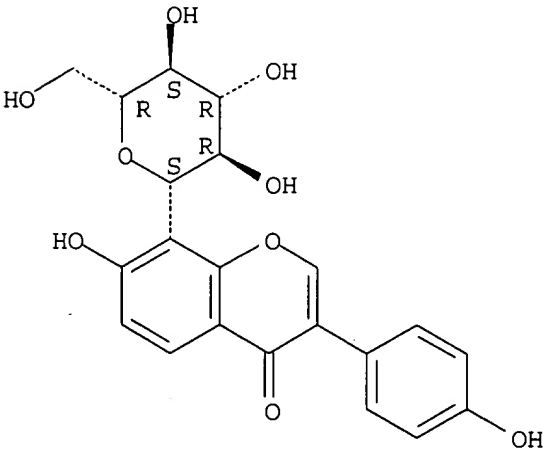
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

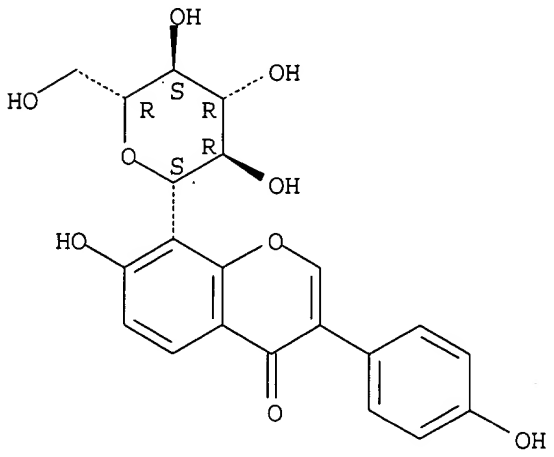
Absolute stereochemistry.



IT **3681-99-0**, Puerarin
RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(pharmaceutical composition for treating and preventing **alc.** abuse

and increasing immune function)
RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



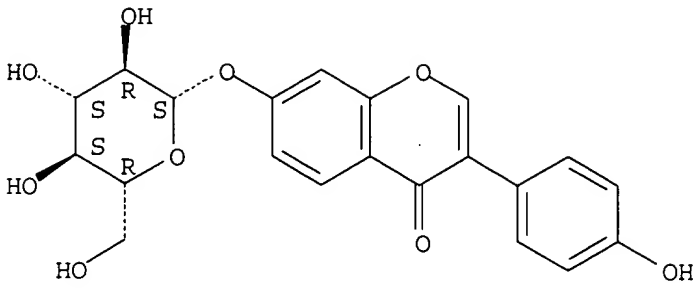
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:493165 HCAPLUS
DOCUMENT NUMBER: 129:157914
TITLE: Method for treating alcohol dependence
INVENTOR(S): Pei, Yue-Hu; Overstreet, David; Rezvani, Amir Hosein; Lee, David Yue-Wei
PATENT ASSIGNEE(S): Natural Pharmacia International, Inc., USA
SOURCE: U.S., 15 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

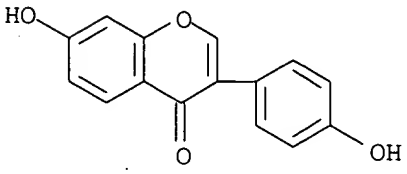
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5783189	A	19980721	US 1996-636347	19960423
PRIORITY APPLN. INFO.:			US 1996-636347	19960423

OTHER SOURCE(S): MARPAT 129:157914
AB Isoflavonoids containing a carbon-carbon linked β-D-glucose moiety at the C-8 position and isolated from the Chinese herbal plant Pueraria lobata are useful for treating alc. dependence.
IT **552-66-9P**, NPI 031D
RL: PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NPI 031D; isoflavonoids of Pueraria lobata for treating **alc.** dependence)
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

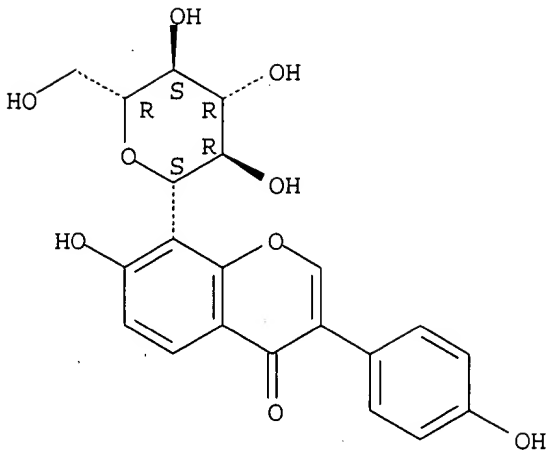


IT **486-66-8P**, NPI 031E
RL: PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NPI 031E; isoflavonoids of Pueraria lobata for treating **alc.** dependence)
RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

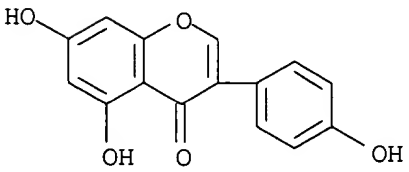


IT **3681-99-0P**, NPI 031G
RL: PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NPI 031G; isoflavonoids of Pueraria lobata for treating **alc.** dependence)
RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

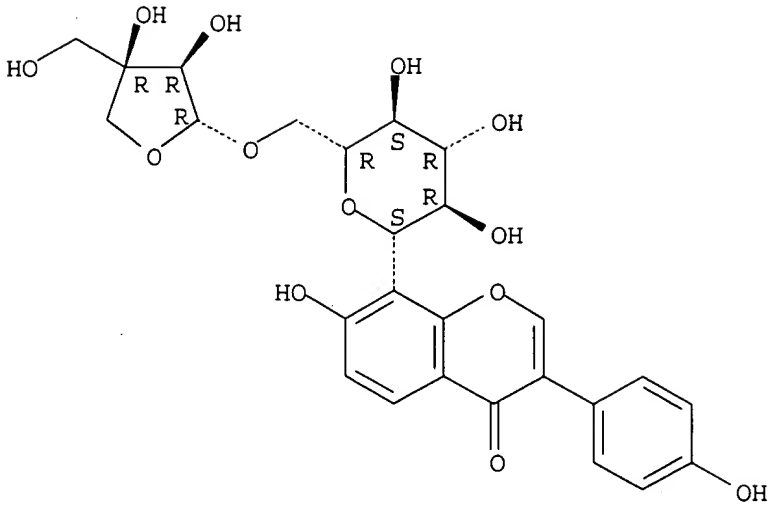


IT **446-72-0P**, NPI 031L
RL: PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(NPI 031L; isoflavonoids of Pueraria lobata for treating **alc.** dependence)
RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



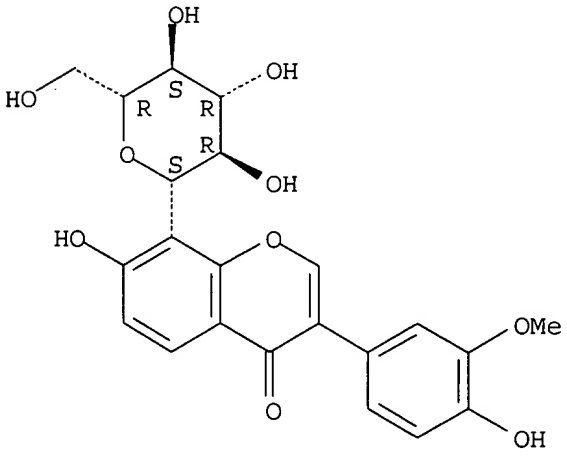
IT **103654-50-8P**, Mirificin **117047-07-1P**, NPI 031F
117060-54-5P, NPI 031H
RL: PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(isoflavonoids of Pueraria lobata for treating **alc.** dependence)
RN 103654-50-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-(6-O-D-apio-β-D-furanosyl-β-D-glucopyranosyl)-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



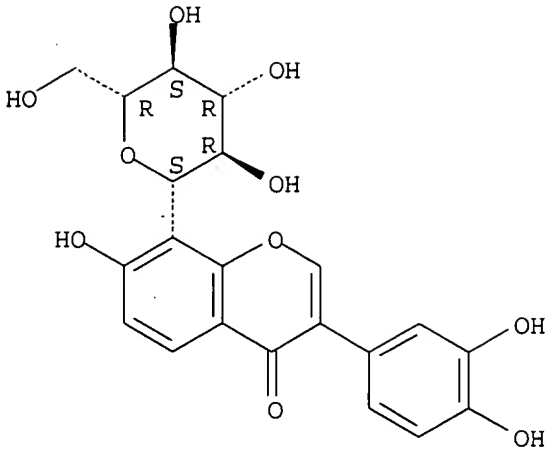
RN 117047-07-1 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxy-3-methoxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 117060-54-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(3,4-dihydroxyphenyl)-8-β-D-glucopyranosyl-7-hydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:311251 HCAPLUS
DOCUMENT NUMBER: 126:326770
TITLE: Method for the inhibition of ALDH-I useful in the treatment of alcohol dependence or alcohol abuse
INVENTOR(S): Vallee, Bert L.; Keung, Wing-Ming
PATENT ASSIGNEE(S): Human Biology, Inc., USA
SOURCE: U.S., log36 pp., Cont.-in-part of U.S. 5,204,369.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5624910	A	19970429	US 1994-170272	19940524
US 5204369	A	19930420	US 1991-723404	19910701
WO 9300896	A1	19930121	WO 1992-US5598	19920630
W: AU, BR, CA, FI, HU, JP, KR, NO, RO, RU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
US 5886028	A	19990323	US 1997-840360	19970429
US 6255497	B1	20010703	US 1998-190360	19981112

PRIORITY APPLN. INFO.:

US 1991-723404	A2	19910701
WO 1992-US5598	W	19920630
US 1994-170272	A1	19940524
US 1997-840360	A3	19970429

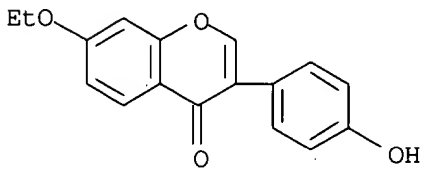
OTHER SOURCE(S): MARPAT 126:326770

AB Method for inhibiting aldehyde dehydrogenase activity using daidzin and/or daidzin analog and/or daidzin or daidzin analog in combination with a factor or factors which increase the bioavailability of the daidzin or daidzin analog, as ALDH-I inhibitory compds. or compns. Such inhibitory compds. or compns. are useful as pharmaceutical compns. in methods for the treatment of alc. dependence (i.e., alcoholism) or alc. abuse, for alc. sensitization, for extinguishing an alc.-drinking response, for suppressing an urge for alc., for inducing alc. intolerance, for preventing alcoholism in an individual with or without a susceptibility or

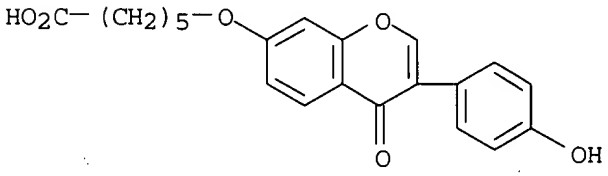
predisposition to alcoholism or alc. abuse, and for limiting alc. consumption in an individual whether or not genetically predisposed.

IT **146698-96-6P 146698-97-7P 146698-98-8P 146698-99-9P**
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(aldehyde dehydrogenase I inhibition in treatment of **alc.** dependence or **alc.** abuse)

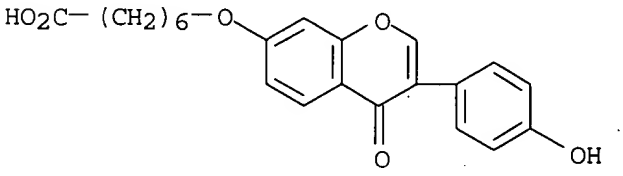
RN 146698-96-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-ethoxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



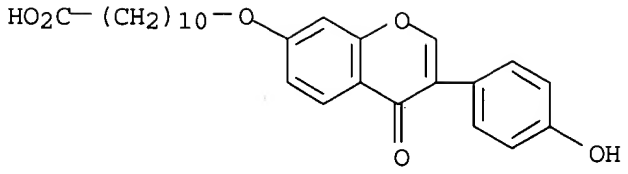
RN 146698-97-7 HCAPLUS
CN Hexanoic acid, 6-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



RN 146698-98-8 HCAPLUS
CN Heptanoic acid, 7-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)

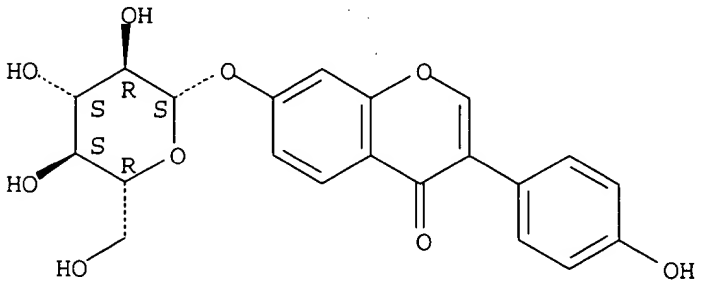


RN 146698-99-9 HCAPLUS
CN Undecanoic acid, 11-[[3-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl]oxy]- (9CI) (CA INDEX NAME)



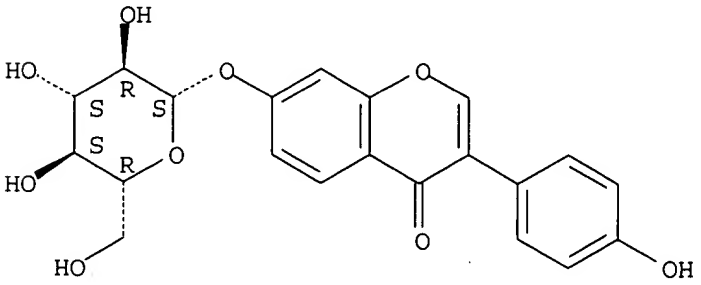
IT **552-66-9P**, Daidzin
RL: BPR (Biological process); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(aldehyde dehydrogenase I inhibition in treatment of **alc.** dependence or **alc.** abuse)
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT **552-66-9D**, Daidzin, analogs
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(aldehyde dehydrogenase I inhibition in treatment of **alc.** dependence or **alc.** abuse)
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L22 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:447759 HCAPLUS
DOCUMENT NUMBER: 125:135267

TITLE: Isoflavonoid compounds extracted from Pueraria lobata suppress alcohol preference in a pharmacogenetic rat model of alcoholism

AUTHOR(S): Lin, Renee C.; Guthrie, Sherri; Xie, Chang-Yi; Mai, Kai; Lee, David Y.; Lumeng, Lawrence; Li, Ting-Kai

CORPORATE SOURCE: School Medicine, Indiana University, Indianapolis, IN, 46202, USA

SOURCE: Alcoholism: Clinical and Experimental Research (1996), 20(4), 659-663
CODEN: ACRSDM; ISSN: 0145-6008

PUBLISHER: Williams & Wilkins

DOCUMENT TYPE: Journal

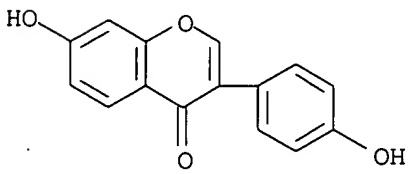
LANGUAGE: English

AB This study was conducted to test the antidipsotropic effect of daidzin and two other major isoflavonoids, daidzein and puerarin, from Pueraria lobata administered by the oral route. An alc.-preferring rat model, the selectively-bred P line of rats, was used for the study. All three isoflavonoid compds. were effective in suppressing voluntary alc. consumption by the P rats. When given orally to P rats at a dose of 100 mg/kg/day, daidzein, daidzin, and puerarin decreased ethanol intake by 75%, 50%, and 40%, resp. The decrease in alc. consumption was accompanied by an increase in water intake, so that the total fluid volume consumed daily remained unchanged. The effects of these isoflavonoid compds. on alc. and water intake were reversible. Suppression of alc. consumption was evident after 1 day of administration and became maximal after 2 days. Similarly, alc. preference returned to baseline levels 2 days after discontinuation of the isoflavonoids. Rats receiving the herbal exts. ate the same amts. of food as control animals, and they gained weight normally during the expts. When administered orally, none of these compds. affected the activities of liver alc. dehydrogenase and aldehyde dehydrogenase. Therefore, the reversal of alc. preference produced by these compds. may be mediated via the CNS. Data demonstrate that isoflavonoid compds. extracted from Pueraria lobata is effective in suppressing the appetite for alc. when taken orally, raising the possibility that other constituents of edible plants may exert similar and more potent actions.

IT **486-66-8**, Daidzein **552-66-9**, Daidzin **3681-99-0**
, Puerarin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(isoflavonoid compds. extracted from Pueraria lobata suppress **alc**
. preference)

RN 486-66-8 HCAPLUS

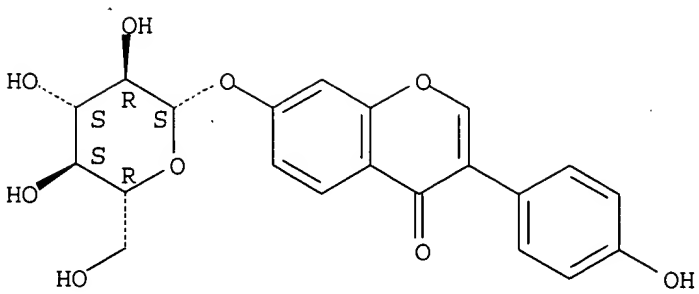
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 552-66-9 HCAPLUS

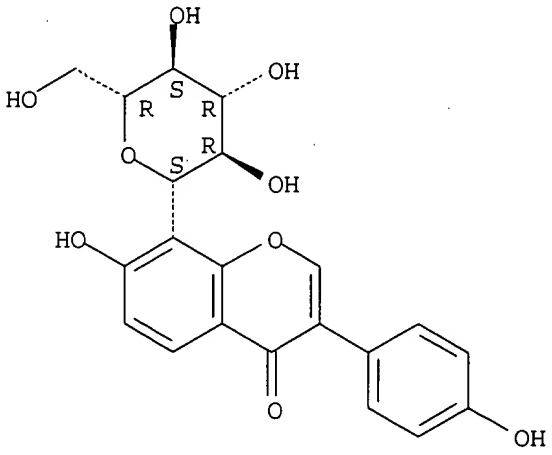
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L22 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:276079 HCAPLUS
DOCUMENT NUMBER: 124:335437
TITLE: Suppression of alcohol intake after administration of the Chinese herbal medicine, NPI-028, and its derivatives
AUTHOR(S): Overstreet, David H.; Lee, Yue-Wei; Rezvani, Amir H.; Pei, Yue-Hu; Criswell, Hugh E.; Janowsky, David S.
CORPORATE SOURCE: School Medicine, University North Carolina, Chapel Hill, NC, 27599-7178, USA
SOURCE: Alcoholism: Clinical and Experimental Research (1996), 20(2), 221-227
CODEN: ACRSDM; ISSN: 0145-6008
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Chinese herbal medicine, NPI-028, has been used for centuries in China to counteract alc. intoxication. The present study used a number of different exptl. conditions to determine whether NPI-028 and its derivs. might selectively influence alc. intake in rodents that naturally exhibit high alc. intakes. It was determined that i.p. (IP) injections of NPI-028 (0.5,

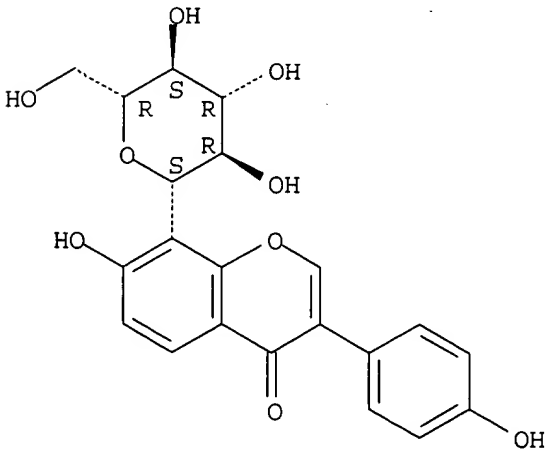
0.75, and 1.0 g/kg) suppressed alc. intake by up to 30% in both alc.-preferring P and Fawn-Hooded (FH) rats during a continuous access schedule. These injections did not significantly affect food or water intakes, nor did the highest dose of NPI-028 (1 g/kg) alter blood ethanol levels after an IP injection of 2.5 g/kg of ethanol. In P rats, it was found that NPI-028 was orally active with the dose of 1.5 g/kg having a greater effect on ethanol intake than the 1.0 g/kg dose; once again, food and water intakes were not significantly altered. In FH rats maintained on a limited access schedule (1 h/day), alc. intake was completely abolished by 1.5 g/kg of NPI-028. Chronic IP administration of NPI-028 (0.75 g/kg) for four consecutive days in FH rats maintained on a continuous access schedule did not lead to any diminution of its alc.-suppressant effects. Thus, NPI-028 has significant effects on alc. intake without much effect on water and food intake, and tolerance does not readily develop to these effects. The IP administration of a partially purified extract (NPI-031) of NPI-028, obtained by countercurrent chromatog., also dose-dependently suppressed ethanol intake in FH rats, but the highest dose (200 mg/kg) also significantly decreased food intake. Finally, the IP administration of puerarin (NPI-31G), an isoflavone isolated from NPI-031 by countercurrent chromatog., significantly reduced ethanol intake in FH rats without affecting food or water intake. Therefore, NPI-028 and one of its pure components, NPI-031G, selectively reduced ethanol intake in alc.-preferring rats.

IT **3681-99-0**, Puerarin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(suppression of **alc.** intake after administration of the Chinese herbal medicine, NPI-028, and its derivs.)

RN 3681-99-0 HCAPLUS

CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



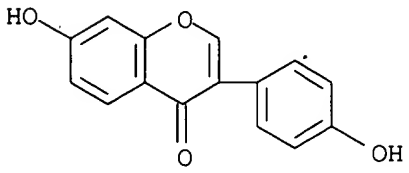
L22 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:167556 HCAPLUS
DOCUMENT NUMBER: 124:352436
TITLE: Pueraria lobata. A medicinal plant against alcoholism?
AUTHOR(S): Saller, Reinhard; Reichling, Juergen

CORPORATE SOURCE: Dep. Inn. Med., Univ. Zuerich, Zurich, CH-8091, Switz.
SOURCE: Deutsche Apotheker Zeitung (1996), 136(9), 25-7
CODEN: DAZEA2; ISSN: 0011-9857
PUBLISHER: Deutscher Apotheker Verlag
DOCUMENT TYPE: Journal
LANGUAGE: German

AB The origin, the content, the pharmacol. effects and the inhibition of alc. metabolism of the Chinese drug Pueraria lobata is presented.

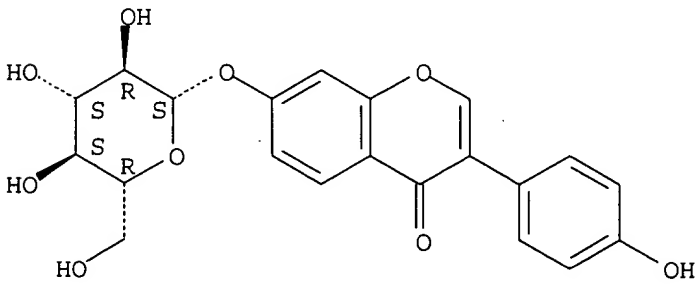
IT **486-66-8**, Daidzein **552-66-9**, Daidzin **3681-99-0**
, Puerarin **114240-18-5 117047-07-1 117060-54-5**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(crude drugs from Pueraria roots against **alcoholism**)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



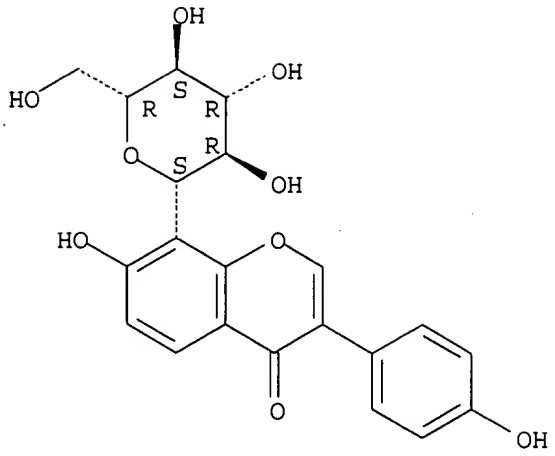
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



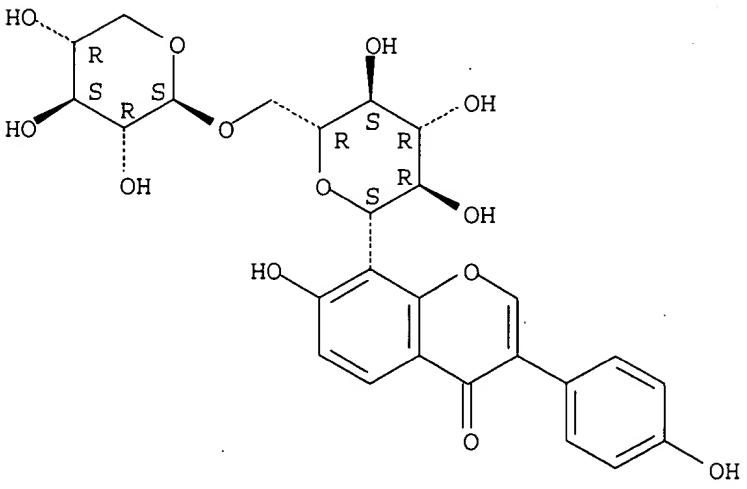
RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



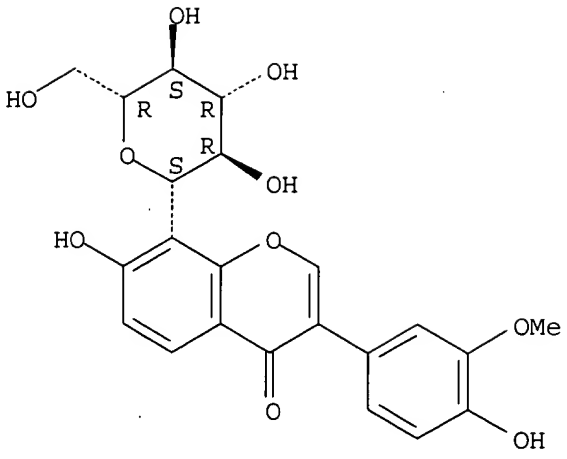
RN 114240-18-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)-8-(6-O-β-D-xylopyranosyl-β-D-glucopyranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



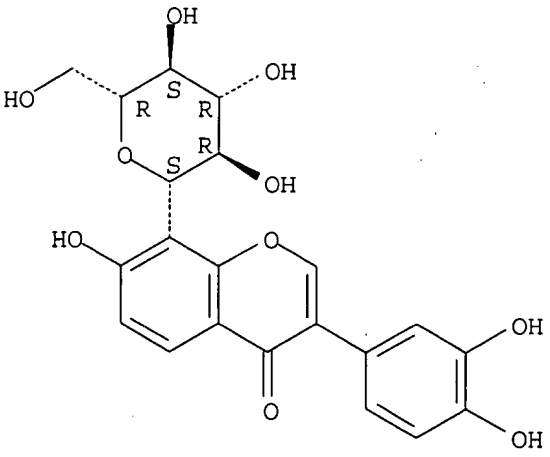
RN 117047-07-1 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxy-3-methoxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 117060-54-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(3,4-dihydroxyphenyl)-8-β-D-glucopyranosyl-7-hydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L22 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:342008 HCAPLUS
DOCUMENT NUMBER: 122:123038
TITLE: Daidzin, an antioxidant isoflavonoid, decreases blood alcohol levels and shortens sleep time induced by ethanol intoxication
AUTHOR(S): Xie, Chang-I; Lin, Renee C.; Antony, Veena; Lumeng, Lawrence; Li, Ting-Kai; Mai, Kai; Liu, Chenjiang; Wang, Qing-duan; Zhao, Zhi-hong; Wang, Gui-fang
CORPORATE SOURCE: School of Medicine, Indiana University, Indianapolis, IN, 46202, USA
SOURCE: Alcoholism: Clinical and Experimental Research (1994), 18(6), 1443-7
CODEN: ACRSDM; ISSN: 0145-6008
DOCUMENT TYPE: Journal

LANGUAGE: English

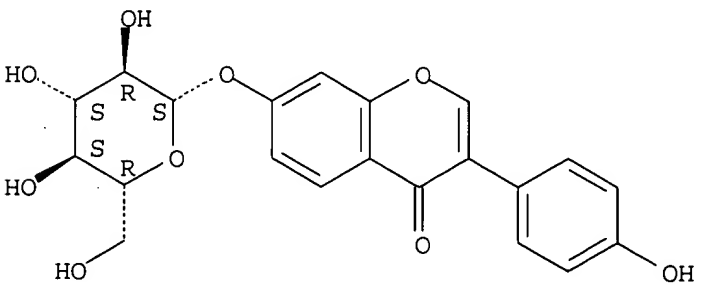
AB The extract from an edible vine, Pueraria lebata, has been reported to be efficacious in lessening alc. intoxication. In this study, the authors have tested the efficacy of one of the major components, daidzin, from this plant extract When ethanol (40% solution, 3 g/kg body weight) was given to fasted rats intragastrically, blood alc. concentration (BAC) peaked at 30 min after alc. ingestion and reached 1.77 mg/mL (mean values). If daidzin (30 mg/kg) was mixed with the ethanol solution and given to animals intragastrically, BAC was found to peak at 90 min after alc. ingestion and reached only 1.20 mg/mL (vs. controls). The ability of daidzin to delay and decrease peak BAC level after ethanol ingestion was also observed in fed animals. In both fasted and fed rats given alc. without daidzin, BAC quickly declined after reaching its peak at 30 min. By contrast, BAC levels receded more slowly if daidzin was also fed to the animals. Daidzin showed a chronic effect. Rats fed daidzin for 7 days before ethanol challenge, but not on the day of challenge, also produced lower and later peak BAC levels. Interestingly, daidzin, whether fed to rats only once or chronically for 7 days, did not significantly alter activities of either alc. dehydrogenase or mitochondrial aldehyde dehydrogenase in the liver. Further expts. demonstrated that daidzin shortened sleep time for rats receiving ethanol intragastrically (7 g/kg) but not i.p. (2 g/kg). To test whether daidzin delayed stomach-emptying, [14C]polyethylene glycol was mixed with ethanol and fed to rats. It was found that, 30 min after intragastric feeding, more ethanol and [14C]polyethylene glycol remained in the stomach if rats were also given daidzin. Because daidzin is an isoflavonoid glucoside that possesses strong antioxidant activity, two other antioxidants (i.e., vitamin E and thioctic acid) were tested. Similar to daidzin, these two antioxidants also delayed and suppressed peak BAC, as well as shortened sleep time induced by alc. ingestion. The authors conclude that: (1) daidzin is effective in countering alc. intoxication; (2) suppression of BAC by daidzin is due mainly to delay of stomach-emptying, but not to accelerated clearance of ethanol in circulation by liver enzymes; and (3) the effect of daidzin may in part be due to its antioxidant activity.

IT **552-66-9**, Daidzin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antioxidant daidzin decreases blood **alc.** levels and shortens sleep time induced by ethanol intoxication)

RN 552-66-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

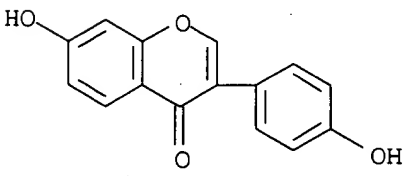


L22 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:648509 HCAPLUS
DOCUMENT NUMBER: 121:248509
TITLE: Biochemical studies of a new class of alcohol dehydrogenase inhibitors from Radix puerariae
AUTHOR(S): Keung, Wing-Ming
CORPORATE SOURCE: Center Biochemical and Biophysical Sciences and Medicine, Harvard Medical School and Brigham and Women's Hospital, Boston, MA, 02115, USA
SOURCE: Alcoholism: Clinical and Experimental Research (1993), 17(6), 1254-60
CODEN: ACRSDM; ISSN: 0145-6008
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two potent, reversible inhibitors of human alc. dehydrogenase (ADH) isoenzymes were isolated from Radix puerariae (RP, commonly known as kudzu root) and identified as the isoflavones daidzein and genistein. The 4'-methoxy derivs. of daidzein (trivial name, formononetin) and genistein (biochanin A), minor constituents of RP, were also shown to be ADH inhibitors. All of these isoflavones inhibit the human γ2γ2-ADH isoenzyme competitively with respect to ethanol and uncompetitively with respect to NAD+. A survey of more than 40 structurally related compds. revealed one more isoflavone (prunetin) and four flavones (7-hydroxyflavone, apigenin, galangin, and kaempferol) that inhibit ADH. The isoflavone inhibitors, however, are far more potent than the flavone inhibitors. Among the isoflavones studied, genistein is the most potent with Ki = 0.1 μM toward γ2γ2-ADH. Human ADH isoenzymes differ in their sensitivity to these inhibitors in the order γ2γ2-, γ1γ1- > αα-, ππ-> XXADH. These inhibitors do not affect the β1β1- and β2β2-ADH isoenzymes at concns. as high as 20 μM. Rat and rabbit class I ADHs are also inhibited by these isoflavone inhibitors. The 7-O-glucosyl derivs. of daidzein, genistein, formononetin, and biochanin A do not inhibit ADH, but are potent aldehyde dehydrogenase inhibitors.

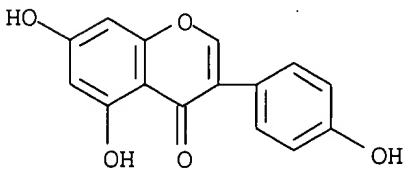
IT **486-66-8**, Daidzein
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Biochem. studies of a new class of **alc.** dehydrogenase inhibitors from Radix puerariae)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

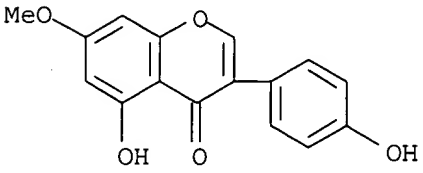


IT **446-72-0**, Genistein **552-59-0**, Prunetin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**alc.** dehydrogenase inhibitors from Radix puerariae)

RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 552-59-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5-hydroxy-3-(4-hydroxyphenyl)-7-methoxy- (9CI) (CA INDEX NAME)



L22 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:185706 HCAPLUS
DOCUMENT NUMBER: 118:185706
TITLE: Method using daidzin or daidzin analog for the inhibition of aldehyde dehydrogenase I (ALDH-I), and use in the treatment of alcohol dependence or alcohol abuse
INVENTOR(S): Vallee, Bert L.; Keung, Wing Ming
PATENT ASSIGNEE(S): Endowment for Research in Human Biology, Inc., USA
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9300896	A1	19930121	WO 1992-US5598	19920630
W: AU, BR, CA, FI, HU, JP, KR, NO, RO, RU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
US 5204369	A	19930420	US 1991-723404	19910701
AU 9223085	A1	19930211	AU 1992-23085	19920630
EP 592583	A1	19940420	EP 1992-915216	19920630
EP 592583	B1	20010131		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
AT 198983	E	20010215	AT 1992-915216	19920630
JP 3170281	B2	20010528	JP 1993-502339	19920630
NO 9304911	A	19940228	NO 1993-4911	19931230
US 5624910	A	19970429	US 1994-170272	19940524
US 6255497	B1	20010703	US 1998-190360	19981112
PRIORITY APPLN. INFO.:			US 1991-723404	A2 19910701

WO 1992-US5598	A	19920630
US 1994-170272	A1	19940524
US 1997-840360	A3	19970429

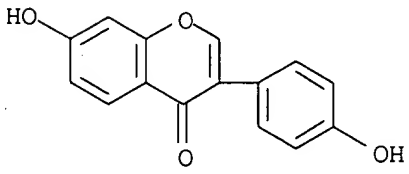
OTHER SOURCE(S): MARPAT 118:185706

AB ALDH-I is inhibited by daidzin (I) or an analog thereof, optionally with factor(s) increasing the bioavailability of the I or I analog. Such inhibitory compds. or compns. are useful as pharmaceutical compns in methods for the treatment of alc. dependence (i.e. alcoholism) or alc. abuse, for alc. sensitization, for extinguishing an alc.-drinking response, for suppressing an urge for alc., for inducing alc. intolerance, for preventing alcoholism in an individual with or without a susceptibility or predisposition to alc. or alc. abuse, and for limiting alc. consumption in an individual, whether or not the individual is genetically predisposed. I was isolated from the crude drug Radix Puerariae (prepared as the dried root of Pueraria lobata). Kinetic consts. for the inhibition by I of ALDH isoenzymes I and II were 40 and 20,000 nM, resp. Preparation and inhibitory activity of ether derivs., e.g. daidzein 7-(ω-carboxydecyl) ether, is also presented. I, at doses of 5, 10, and 30 mg/day suppressed alc. intake by hamsters by 20, 50, and 80%, resp. I in a crude Radix Puerariae methanolic extract was 5-10 times more potent than pure I.

IT **486-66-8D**, analogs **552-66-9**, Daidzin
RL: BIOL (Biological study)
(aldehyde dehydrogenase I inhibition with, **alcoholism** treatment in relation to)

RN 486-66-8 HCAPLUS

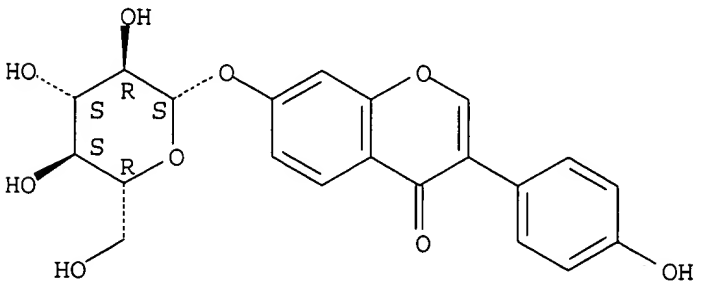
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 552-66-9 HCAPLUS

CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L22 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:185661 HCAPLUS

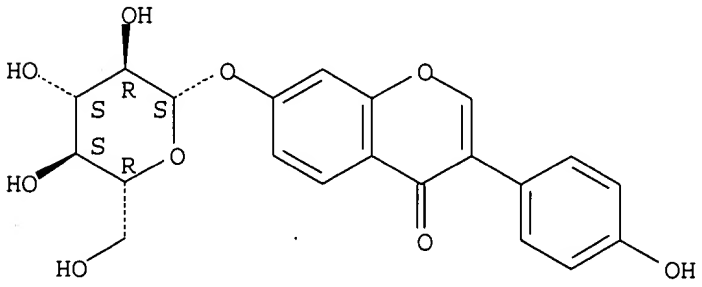
DOCUMENT NUMBER: 118:185661
TITLE: Daidzin: A potent, selective inhibitor of human mitochondrial aldehyde dehydrogenase
AUTHOR(S): Keung, Wing Ming; Vallee, Bert L.
CORPORATE SOURCE: Cent. Biochem. Biophys. Sci. Med., Harvard Med. Sch., Boston, MA, 02115, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1993), 90(4), 1247-51
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Human mitochondrial aldehyde dehydrogenase (ALDH-I) is potently, reversibly, and selectively inhibited by an isoflavone isolated from Radix puerariae and identified as daidzin, the 7-glucoside of 4',7-dihydroxyisoflavone. Kinetic anal. with formaldehyde as substrate reveals that daidzin inhibits ALDH-I competitively with respect to formaldehyde with a Ki of 40 nM, and uncompetitively with respect to the coenzyme NAD+. The human cytosolic aldehyde dehydrogenase isoenzyme (ALDH-II) is nearly 3 orders of magnitude less sensitive to daidzin inhibition. Daidzin does not inhibit human class I, II, or III alc. dehydrogenases, nor does it have any significant effect on biol. systems that are known to be affected by other isoflavones. Among more than 40 structurally related compds. surveyed, 12 inhibit ALDH-I, but only prunetin and 5-hydroxydaidzin (genistin) combine high selectivity and potency, although they are 7- to 15-fold less potent than daidzin. Structure-function relationships have established a basis for the design and synthesis of addnl. ALDH inhibitors that could both be yet more potent and specific. Perhaps the ALDH-I inhibitors could be useful in the treatment of alcoholism.

IT **552-66-9**, Daidzin
RL: BIOL (Biological study)
(of Radix puerariae and aldehyde dehydrogenase of humans inhibition by, **alcoholism** treatment and structure in relation to)

RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

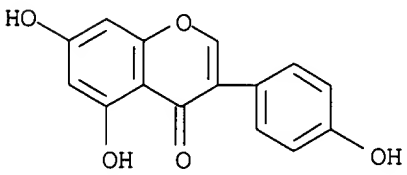


L22 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:625995 HCAPLUS
DOCUMENT NUMBER: 115:225995
TITLE: Tetrahydroisoquinoline alkaloids mimic direct but not receptor-mediated inhibitory effects of estrogens and phytoestrogens on testicular endocrine function. Possible significance for Leydig cell insufficiency in

alcohol addiction
AUTHOR(S): Stammel, Waltraud; Thomas, Helmut; Staib, Wolfgang; Kuehn-Velten, W. Nikolaus
CORPORATE SOURCE: Abt. Physiol. Chem., Univ. Ulm, Ulm, Germany
SOURCE: Life Sciences (1991), 49(18), 1319-29
CODEN: LIFSAK; ISSN: 0024-3205
DOCUMENT TYPE: Journal
LANGUAGE: English

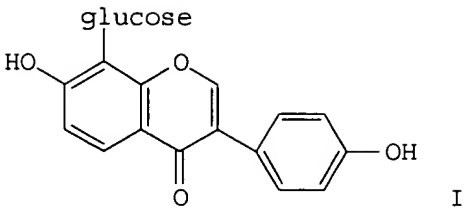
AB Possible effects of various tetrahydroisoquinokines (TIQs) on rat testicular endocrine function were tested in vitro to prove whether these compds., some of which have been claimed to accumulate in alcoholics, may be mediators of the development of Leydig cell insufficiency, a well-known side-effect of ethanol ingestion. TIQ effects on different levels of regulation of testis function were compared in vitro with estrogen effects, since both classes of compds. have structural similarities. Gonadotropin-stimulated testosterone production by testicular Leydig cells was inhibited by tetrahydropapaveroline and isosalsoline, the IC50 values (30 μM) being comparable to those of estradiol (3 μM), 2-hydroxyestradiol (10 μM), and the phytoestrogens, coumestrol (15 μM) and genistein (7 μM); salsolinol (85 μM) and salsoline (240 μM) were less effective, and salsolidine was ineffective. None of these TIQs interacted significantly with testicular estrogen receptor as analyzed by estradiol displacement. However, tetrahydropapaveroline, isosalsoline, and salsolinol competitively inhibited (Ki 130-150 μM) substrate binding to cytochrome P450XVII, one key enzyme of androgen biosynthesis, with similar efficiency as the estrogens did (Ki 50-110 μM); salsoline and salsolidine were again much less effective. Thus, certain TIQs may amplify peripheral inhibitory effects of ethanol on testicular endocrine function by their interaction with at least one enzyme of the androgen biosynthetic pathway.

IT **446-72-0**
RL: BIOL (Biological study)
(testicular endocrine function response to, during **alc.** addiction)
RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1986:45507 HCAPLUS
DOCUMENT NUMBER: 104:45507
TITLE: The antidysrhythmic effect of Pueraria isoflavones
AUTHOR(S): Fan, Lili; Zhao, Dehua; Zhao, Minqi; Zeng, Guiyun
CORPORATE SOURCE: Inst. Mater. Med., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China
SOURCE: Yaoxue Xuebao (1985), 20(9), 647-51
CODEN: YHHPAL; ISSN: 0513-4870
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

GI



I

AB In anesthetized rats, arrhythmia induced by aconitine and BaCl2 was antagonized by i.v. or orally administered puerarin (I) [**3681-99-0**], the main constituent of Pueraria isoflavones. These 2 types of arrhythmia were also attenuated after oral administration of daidzein [**486-66-8**], the major aglycon of Pueraria isoflavones, and by equivalent doses of the **alc.** extract of Pueraria, which contains 40% isoflavones. Furthermore, ventricular fibrillation induced by CaCl2 in rats and by CHCl3 in mice was prevented by daidzein or the **alc**. extract of Pueraria given orally. The duration of the ventricular fibrillation produced by occlusion of the coronary artery in rats was decreased by daidzein given orally for 4 days. In anesthetized cats, the duration of monophasic action potentials and the effective refractory period of the heart in situ were prolonged by i.v. injection of puerarin. Apparently, Pueraria isoflavones can decrease myocardial excitability and may be beneficial in the treatment of myocardial ischemia.

L22 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1976:437126 HCAPLUS
DOCUMENT NUMBER: 85:37126
TITLE: Antimicrobial activity and chemical composition of Genista tinctoria
AUTHOR(S): Palamarchuk, A. S.; Bondarenko, V. E.
CORPORATE SOURCE: Gomel. Gos. Univ., Gomel, USSR
SOURCE: Rastitel'nye Resursy (1976), 12(2), 229-32
CODEN: RRESA8; ISSN: 0033-9946
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Alkaloids, tannic substances, 4 flavonoids (genistein [**446-72-0**], genistin [**529-59-9**], luteolin [491-70-3], and digitoflavonoside [5373-11-5]), ascorbic acid [50-81-7], and minerals were isolated from the above-ground portions of dyer's greenweed found in Soviet pine forests. Aqueous-**alc.** tinctures from the above-ground portions of dyer's greenweed were active against Staphylococcus aureus in a 1:640 dilution, with tinctures from the flowers, leaves, and stems active in dilns. of 1:1280, 1:160, and 1:10, resp. The exts. contained relatively large amts. of Ca, K, Al, Ba, Mn, Si, and P.

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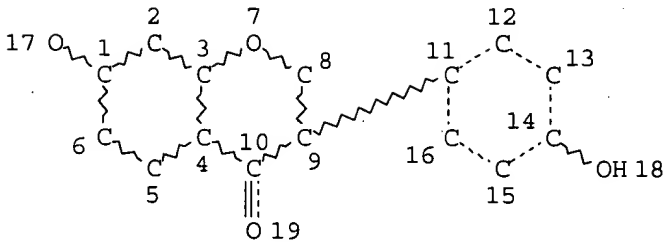
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L3 1168 SEA FILE=REGISTRY SSS FUL L1
L4 48 SEA FILE=REGISTRY ABB=ON PLU=ON ALDH2 OR ALDH(L)2
L6 27 SEA FILE=REGISTRY ABB=ON PLU=ON ALCOHOL DEHYDROGENASE 2?/CN
L10 3 SEA FILE=REGISTRY ABB=ON PLU=ON ("5-HYDROXYINDOLE-3-ACETIC ACID"/CN OR "5-HYDROXYINDOLE-3-ACETIC ACID GLUCURONIDE"/CN OR "5-HYDROXYINDOLE-3-ACETIC ACID O-GLUCURONIDE"/CN OR "5-HYDROXYINDOLE-3-ACETIC ACID SULFATE"/CN)
L11 10 SEA FILE=REGISTRY ABB=ON PLU=ON ("3,4-DIHYDROXYPHENYLACETIC ACID B-GLUCOSIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 2,3-DIOXYGENASE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 3,4-DIHYDROXYANILIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 3,4-DIHYDROXYBENZYLAMIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID 3,4-DIHYDROXYPHENETHYLAMIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID CYCLOHEXYLAMINE SALT"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID DIETHYLAMIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID ETHYL ESTER"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID GLUCURONIDE"/CN OR "3,4-DIHYDROXYPHENYLACETIC ACID POLYMER"/CN)
L12 1 SEA FILE=REGISTRY ABB=ON PLU=ON 5-HYDROXYINDOLE-3-ACETALDEHYDE/CN
L13 16 SEA FILE=REGISTRY ABB=ON PLU=ON DIHYDROXYPHENYL (L) ACETALDEHYDE
L14 1 SEA FILE=REGISTRY ABB=ON PLU=ON HYDROXYINDOLE (L) ACETALDEHYDE
L15 6832 SEA FILE=HCAPLUS ABB=ON PLU=ON L3
L16 684 SEA FILE=HCAPLUS ABB=ON PLU=ON L6 OR L4 OR ALDH2 OR ALDH(W)2 OR ALCOHOL (W) DEHYDROGENASE (W) 2
L17 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L16
L18 9710 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 OR L11 OR L12 OR L13 OR L14 OR (HYDROXYINDOL? OR DIHYDROXYPHENYL) (2A) (ACETIC (W) ACID OR ACETALDEHYDE)
L19 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L18
L20 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 NOT L17
L21 33 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 (L) (ALCOHOL?)
L22 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 NOT (L17 OR L20)
L23 207348 SEA FILE=HCAPLUS ABB=ON PLU=ON ("DRUG DEPENDENCE"/CT OR ALCOHOLISM/CT OR "DRUG DEPENDENCE (L) ALCOHOLISM"/CT OR "ALC. DEPENDENCE SYNDROME"/CT OR "ALCOHOL ABUSE"/CT OR "ALCOHOL DEPENDENCE SYNDROME"/CT OR CIRRHOSIS/CT OR "FETAL ALCOHOL

SYNDROME"/CT OR "POISONING, BIOLOGICAL"/CT OR ETHANOL/CT OR NALTREXONE/CT)
L25 128 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 AND L15
L26 96 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 NOT (L17 OR L20 OR L22)
L27 17 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND PD=<MAY 12, 1998

=> d ibib abs hitstr l27 tot

L27 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:519341 HCAPLUS
DOCUMENT NUMBER: 135:91861
TITLE: Method of preparing and using isoflavones
INVENTOR(S): Empie, Mark; Gugger, Eric
PATENT ASSIGNEE(S): Archer Daniels Midland Co., USA
SOURCE: U.S., 8 pp., Cont.-in-part of U.S. 6,033,714.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 6261565	B1	20010717	US 1998-162038	19980928	
US 5702752	A	19971230	US 1996-614545	19960313	<--
IL 130611	A1	20010430	IL 1997-130611	19970310	
US 5792503	A	19980811	US 1997-868629	19970604	
US 6033714	A	20000307	US 1998-35588	19980305	
AU 9887879	A1	19990422	AU 1998-87879	19981001	
AU 748832	B2	20020613			
ZA 9808962	A	19990913	ZA 1998-8962	19981001	
NZ 332131	A	20010629	NZ 1998-332131	19981001	
CA 2249501	C	20030114	CA 1998-2249501	19981001	
EP 906761	A2	19990407	EP 1998-308060	19981002	
EP 906761	A3	19990519			
EP 906761	B1	20040714			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 11221048	A2	19990817	JP 1998-296187	19981002	
MX 9808146	A	20001031	MX 1998-8146	19981002	
AT 270894	E	20040715	AT 1998-308060	19981002	
EP 1466609	A1	20041013	EP 2004-15530	19981002	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY					
ES 2224337	T3	20050301	ES 1998-308060	19981002	
HK 1016879	A1	20050422	HK 1999-101886	19990427	
US 6391308	B1	20020521	US 2000-615239	20000713	
US 6391309	B1	20020521	US 2000-615240	20000713	
US 6391310	B1	20020521	US 2000-616205	20000713	
US 6395279	B1	20020528	US 2000-616150	20000713	
US 6399072	B1	20020604	US 2000-615152	20000713	
US 2002168433	A1	20021114	US 2002-136103	20020501	
US 2002187211	A1	20021212	US 2002-136158	20020501	
US 6509381	B2	20030121			
US 2003003168	A1	20030102	US 2002-137490	20020501	
US 6900240	B2	20050531			
US 6518319	B1	20030211	US 2002-136150	20020501	
US 2003064938	A1	20030403	US 2002-136079	20020501	

PRIORITY APPLN. INFO.:

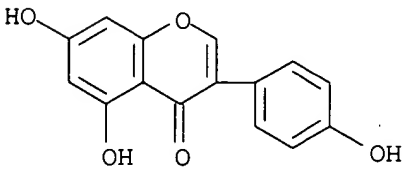
US 1996-614545	A3	19960313
US 1997-868629	A2	19970604
US 1997-60549P	P	19971002
US 1998-35588	A2	19980305
IL 1997-120409	A3	19970310
US 1998-162038	A	19980928
US 1998-162038P	P	19980928
EP 1998-308060	A3	19981002
US 2000-615152	A3	20000713
US 2000-615239	A3	20000713
US 2000-615240	A3	20000713
US 2000-616150	A3	20000713
US 2000-616205	A3	20000713

AB The invention provides for a refinement of phytochems. in order to tailor the refined end product to particular human dietary needs. More particularly, a composition is prepared by extracting phytochems. from plant matter.

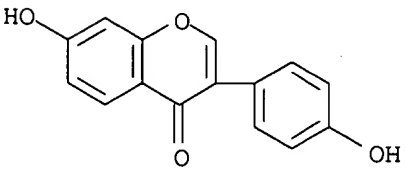
This composition is enriched preferably in two or more isoflavones, lignans, saponins, catechins and phenolic acids. Soy is the preferred source of these chems.; however, other plants may also be used, such as red clover, kudzu, flax, and cocoa. The composition is a dietary supplement for treatment of various cancers, pre-and-post-menstrual syndromes, and various other disorders.

IT **446-72-0**, Genistein **486-66-8**, Daidzein
40957-83-3, Glycitein
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(isoflavone preparing method and use)

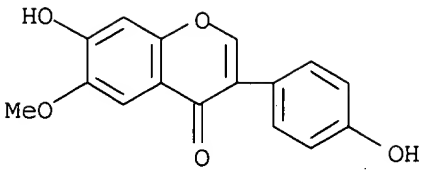
RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 40957-83-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:25674 HCAPLUS
DOCUMENT NUMBER: 134:70658
TITLE: Production of isoflavone enriched fractions from soy protein extracts
INVENTOR(S): Gugger, Eric; Grabiel, Richard
PATENT ASSIGNEE(S): Archer Daniels Midland Company, USA
SOURCE: U.S., 15 pp., Cont.-in-part of U. S. 6,033,714.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6171638	B1	20010109	US 2000-478751	20000106
US 5702752	A	19971230	US 1996-614545	19960313 <--
IL 130611	A1	20010430	IL 1997-130611	19970310
US 5792503	A	19980811	US 1997-868629	19970604
US 6033714	A	20000307	US 1998-35588	19980305
US 6565912	B1	20030520	US 2000-697696	20001026

PRIORITY APPLN. INFO.:

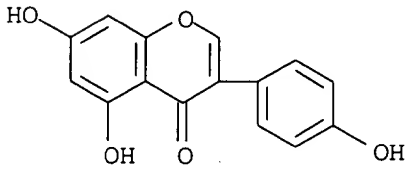
US 1996-614545	A3	19960313
US 1997-868629	A2	19970604
US 1998-35588	A2	19980305
IL 1997-120409	A3	19970310
US 2000-478751	A2	20000106

AB The temperature sensitive differential of the solubilities of various isoflavone
fractions is used to initially sep. the fractions by heating an aqueous soy molasses or soy whey feed stream. The temperature of the feed stream is selected according to the temperature at which a desired isoflavone fraction or fractions become soluble Then, the heated feed stream is passed through an ultrafiltration membrane or reverse osmosis in order to concentrate the solids. The resulting permeate is put through a resin adsorption process carried out in at least one liquid chromatog. column to further sep. the desired isoflavone fractions. Various processes are described for drying and crystallizing the isoflavone fractions to a powder. A solvent is then added to the isoflavone fraction to dissolve impurities and rehydrate the dry powder. Usually, the rehydrated isoflavone is used as an additive to a food ingredient or food product. At various points in the process a selected amount of isoflavones may or may not be blended with the powder in order to bring the isoflavone to a desired characteristic specification or to produce a food ingredient or food product.

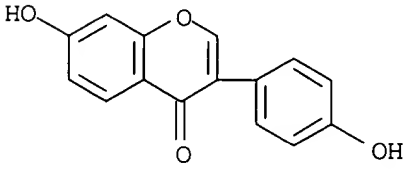
IT **446-72-0P**, Genistein **486-66-8P**, Daidzein
40246-10-4P, Glycitin **40957-83-3P**, Glycitein
51011-05-3P 71385-83-6P 73566-30-0P
124590-31-4P 134859-96-4P 137705-39-6P

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); FFD (Food or feed use); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(production of isoflavone enriched fractions from soy protein exts.)

RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

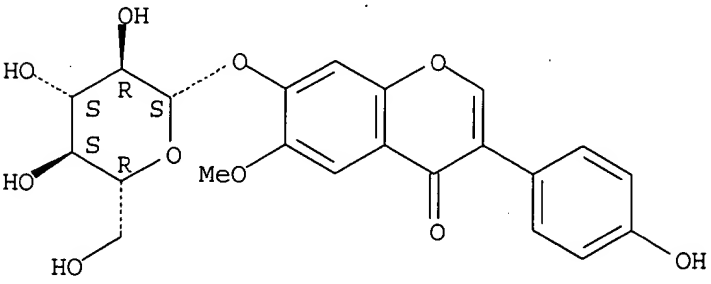


RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

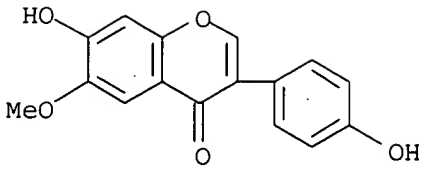


RN 40246-10-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

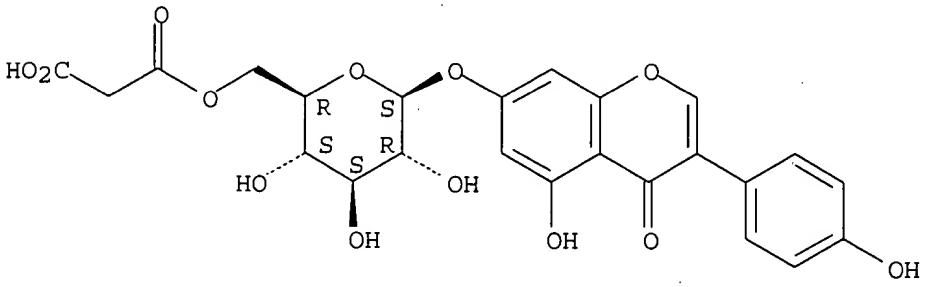


RN 40957-83-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)



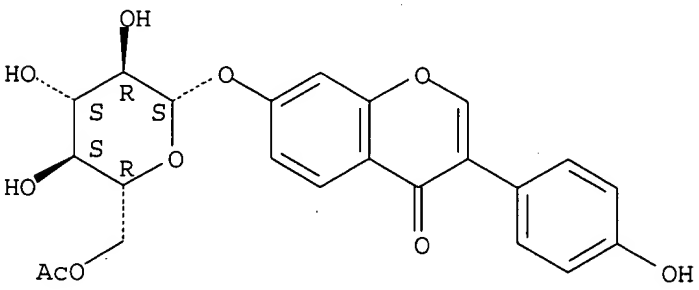
RN 51011-05-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



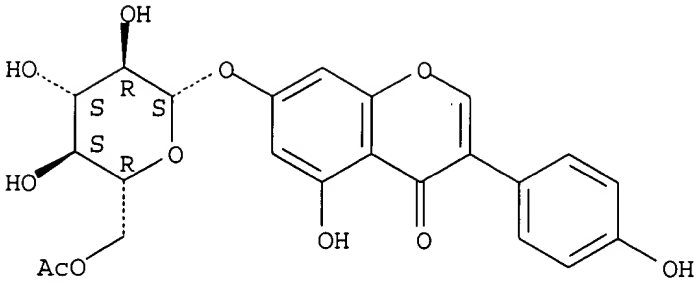
RN 71385-83-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-O-acetyl-β-D-glucopyranosyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



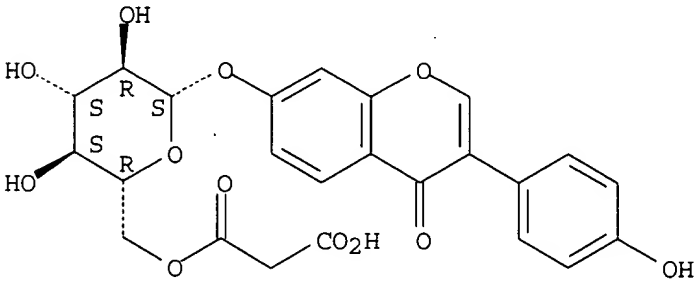
RN 73566-30-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-O-acetyl-β-D-glucopyranosyl)oxy]-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



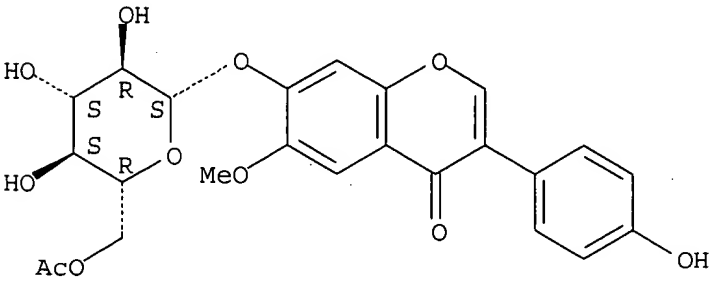
RN 124590-31-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



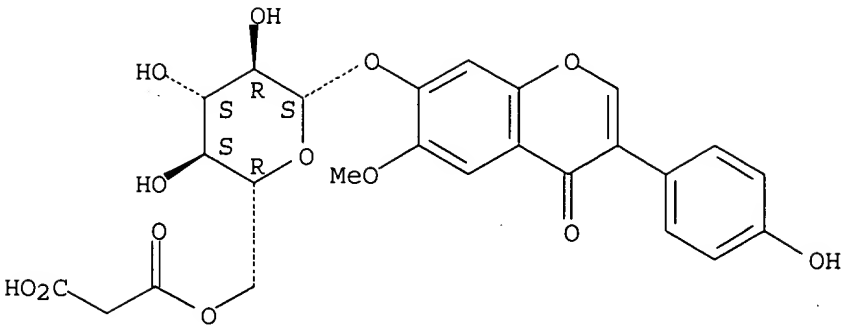
RN 134859-96-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-O-acetyl-β-D-glucopyranosyl)oxy]-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 137705-39-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **64-17-5**, Ethanol, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process) (solvent; production of isoflavone enriched fractions from soy protein exts.)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

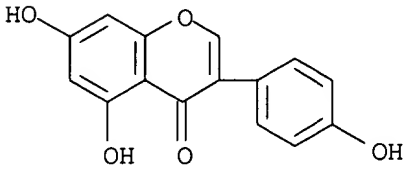
L27 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:789453 HCAPLUS
DOCUMENT NUMBER: 130:138466
TITLE: Quantification of isoflavones by capillary zone electrophoresis in soybean seeds: effects of variety and environment
AUTHOR(S): Aussenac, Thierry; Lacombe, Stephanie; Dayde, Jean
CORPORATE SOURCE: Laboratoire d'Agrophysiologie, ESA Purpan (Ecole Superieure d'Agriculture de Purpan), Toulouse, Fr.
SOURCE: American Journal of Clinical Nutrition (**1998**), 68(6, Suppl.), 1480S-1485S
CODEN: AJCNAC; ISSN: 0002-9165
PUBLISHER: American Society for Clinical Nutrition
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Soybean isoflavones (genistin, daidzin, glycitin, and their malonyl forms and aglycons) are thought to be responsible for the astringent taste of soy foods. Generally, HPLC with a methanol and water elution gradient is used for isoflavone quantification, but capillary zone electrophoresis (CZE) has been used more recently to sep. several flavonoids in plant exts. The results of CZE anal. of isoflavones in soybean exts. are presented. Conditions for separation by using CZE were optimized for anal. of soybean isoflavones. The results of extraction at different temps. and with different compns. of solvent were compared. Total extraction of isoflavones was not affected by temperature but was affected by composition of the solvent. Malonyl forms of isoflavones were thermally unstable. The isoflavone content of different varieties of soybean seeds sown on different dates were also analyzed. The total isoflavone content varied among different varieties and with sowing dates. Interactions between the variety and the sowing date also affected isoflavone composition Thus, the variety of soybean seed and environmental growing conditions, such as sowing date, can

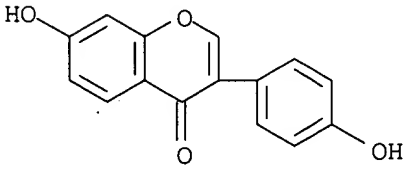
contribute to seed quality by reducing its isoflavone content, modifying its isoflavone composition, or both.

IT **446-72-0**, Genistein **486-66-8**, Daidzein **529-59-9**, Genistin **552-66-9**, Daidzin **40246-10-4**, Glycitin **51011-05-3 124590-31-4 137705-39-6**
RL: ANT (Analyte); ANST (Analytical study)
(quantification of isoflavones by capillary zone electrophoresis in soybean seeds: effects of variety and environment)

RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

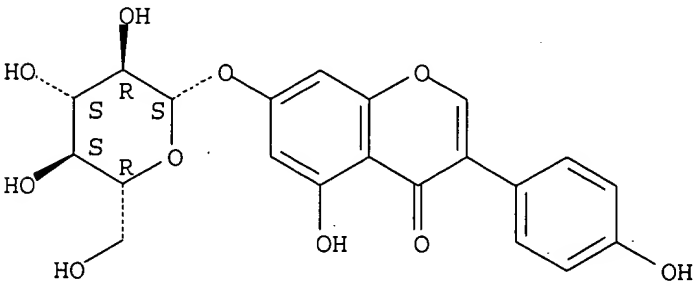


RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



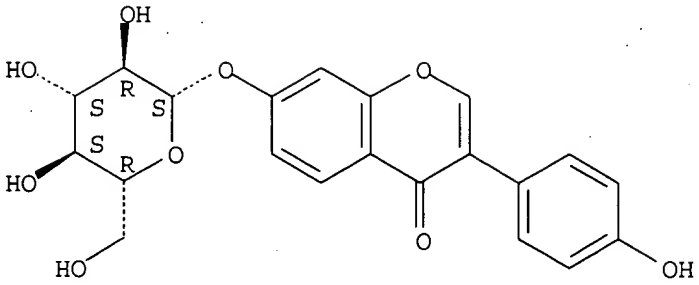
RN 529-59-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



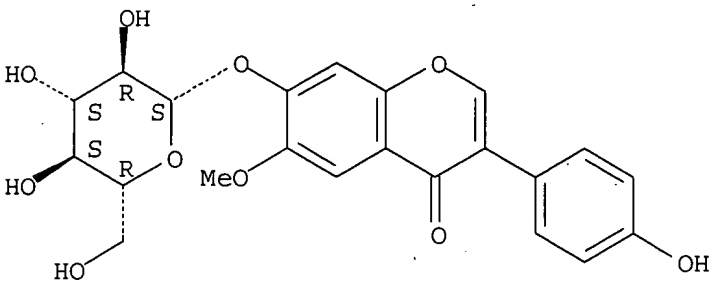
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



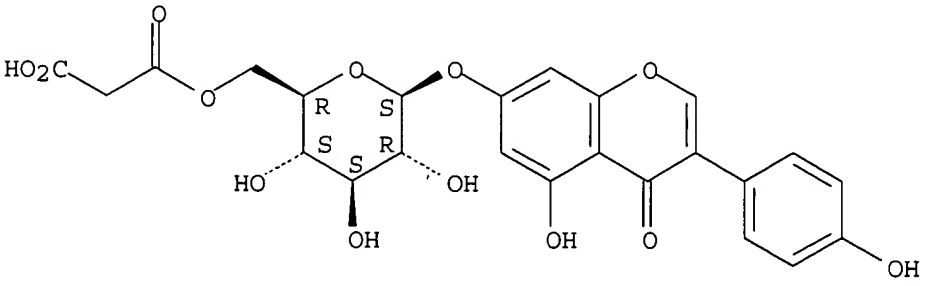
RN 40246-10-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



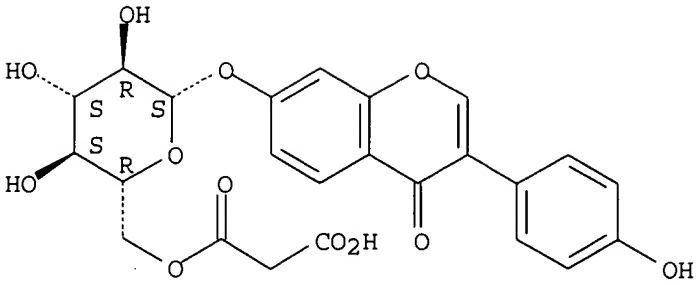
RN 51011-05-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



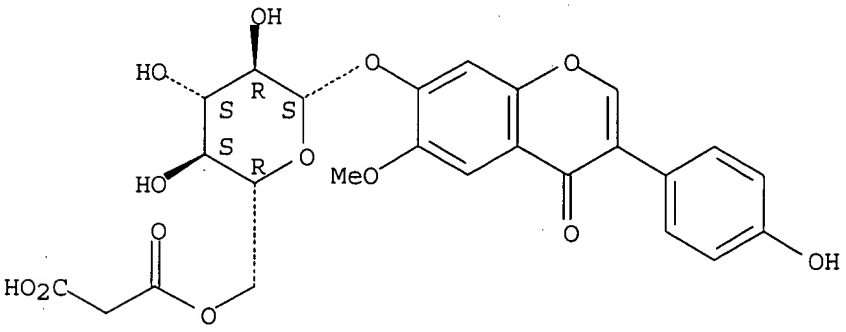
RN 124590-31-4 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

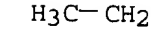


RN 137705-39-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(carboxyacetyl)-β-D-glucopyranosyl]oxy]-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **64-17-5**, Ethanol, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(quantification of isoflavones by capillary zone electrophoresis in soybean seeds: effects of variety and environment)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:634676 HCAPLUS
DOCUMENT NUMBER: 130:1274
TITLE: Enhancement of glycine receptor function by ethanol: role of phosphorylation
AUTHOR(S): Mascia, Maria Paola; Wick, Marilee J.; Martinez, Larry D.; Harris, R. Adron
CORPORATE SOURCE: Department of Pharmacology, University of Colorado Health Sciences Center, Denver, CO, 80262, USA
SOURCE: British Journal of Pharmacology (**1998**), 125(2), 263-270
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Stockton Press

DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of several kinase inhibitors (staurosporine, GF 109203X, H89, KN62, genistein) and of the phosphatase inhibitor calyculin A were studied on the ethanol potentiation and on the function of homomeric α1 glycine receptor expressed in Xenopus oocytes using a two electrode voltage clamp recording technique. The function of the homomeric α1 glycine receptor was not modified in Xenopus oocytes pretreated with kinase inhibitors or with the phosphatase inhibitor calyculin A. The potentiation of the glycine receptor function induced by ethanol (10 - 200 mM) was significantly reduced in Xenopus oocytes pretreated with the PKC inhibitors staurosporine or GF 109203X. No differences in propofol (2.5 μM) or halothane (250 μM) actions were found after exposure of Xenopus oocytes to staurosporine. No differences in ethanol sensitivity were found after exposure of Xenopus oocytes expressing glycine α1 receptors to H89, KN62, genistein or to the phosphatase inhibitor calyculin A. The mutant α1 (S391A), in which the PKC phosphorylation site at serine 391 was mutated to alanine, was less sensitive to the effects of ethanol than was the α1 wild type receptor. Moreover, the ethanol potentiation of the glycine receptor function was not affected by treatment with staurosporine in oocytes expressing α1 (S391A). The splice variant of the α1 glycine receptor subunit, α1ins, containing eight addnl. amino acids and a potential phosphorylation site for PKA, did not differ from wild type for sensitivity to ethanol. These results indicate that phosphorylation by PKC of the homomeric α1 glycine receptor subunit modulates ethanol potentiation, but not the function of the glycine receptor.

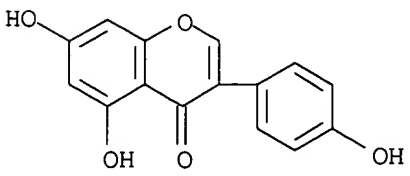
IT **64-17-5**, Ethanol, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(glycine receptor function enhancement by ethanol and role of phosphorylation)

RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

IT **446-72-0**, Genistein
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(kinase inhibitor; glycine receptor function enhancement by ethanol and role of phosphorylation)

RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



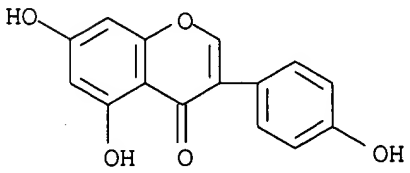
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:393010 HCAPLUS
DOCUMENT NUMBER: 129:117386
TITLE: Glucuronidation of amines and other xenobiotics catalyzed by expressed human UDP-glucuronosyltransferase 1A3
AUTHOR(S): Green, Mitchell D.; King, Christopher D.; Mojarrabi, Behnaz; Mackenzie, Peter I.; Tephly, Thomas R.
CORPORATE SOURCE: Department of Pharmacology, University of Iowa, Iowa City, IA, 52242, USA
SOURCE: Drug Metabolism and Disposition (**1998**), 26(6), 507-512
CODEN: DMDSAI; ISSN: 0090-9556
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Glucuronide conjugation of xenobiotics containing a tertiary amine moiety represents a unique and important metabolic pathway for these compds. in humans. Previously, human UDP-glucuronosyltransferase (UGT) 1A4 was shown to be an important enzyme for the formation of quaternary ammonium-linked glucuronides. UGT1A3 is 93% identical to UGT1A4 in primary amino acid sequence. The authors show that human UGT1A3, transiently expressed in human embryonic kidney 293 cells, also catalyzes the N-glucuronidation of primary, secondary, and tertiary amine substrates, such as 4-aminobiphenyl, diphenylamine, and cyproheptadine. In contrast to expressed human UGT1A4, which catalyzes the glucuronidation of amines with high efficiency, glucuronidation of amines catalyzed by UGT1A3 exhibited low efficiency, suggesting that UGT1A3 makes only a limited contribution to the metabolic elimination of these compds. The reactivity of expressed human UGT1A3 toward hydroxylated and carboxylic acid-containing compds. was also examined In addition to amines, expressed human UGT1A3 catalyzed the glucuronidation of opioids (e.g. morphine and buprenorphine), coumarins, flavonoids (eg. naringenin and quercetin), anthraquinones, and small phenolic compds. (e.g. 4-nitrophenol). Drugs containing a carboxylic acid moiety, such as nonsteroidal anti-inflammatory agents (e.g. naproxen and ibuprofen) and fibrates (eg. ciprofibrate), were substrates for human UGT1A3. In contrast, compds. containing an aliphatic hydroxyl group, such as sapogenins, monoterpenoid alcs. (e.g. menthol and bomeol), and androgens, were not conjugated by expressed human UGT1A3. Of the compds. tested, scopoletin, naringenin, and norbuprenorphine appeared to be the best xenobiotic substrates for human UGT1A3.

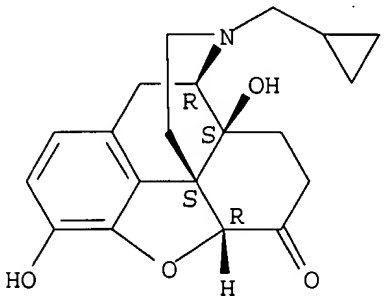
IT **446-72-0**, Genistein **16590-41-3**, Naltrexone
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(glucuronidation of amines and other xenobiotics catalyzed by expressed human UDP-glucuronosyltransferase 1A3)

RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 16590-41-3 HCAPLUS
CN Morphinan-6-one, 17-(cyclopropylmethyl)-4,5-epoxy-3,14-dihydroxy-, (5α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:689569 HCAPLUS
DOCUMENT NUMBER: 127:351174
TITLE: Process for the isolation and purification of isoflavones
INVENTOR(S): Zheng, Bolin; Yegge, John A.; Bailey, David T.; Sullivan, James L.
PATENT ASSIGNEE(S): Hauser, Inc., USA
SOURCE: U.S., 14 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5679806	A	19971021	US 1995-394407	19950224 <--

PRIORITY APPLN. INFO.: US 1995-394407 19950224

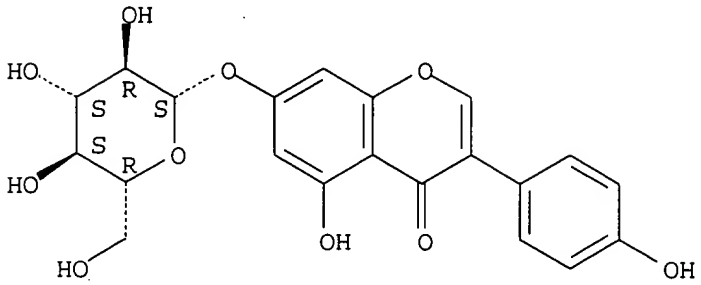
AB The present invention relates to a process for the isolation and purification of isoflavones from a number of different biomass sources. More particularly, the present invention relates to a three-step process whereby a biomass containing isoflavones with a solvent thereby forming an extract that is subsequently fractionated using a reverse phase matrix in combination with a step gradient elution, wherein the resulting fractions eluted from the column contain specific isoflavones that are later crystallized The purified isoflavone glycosides may then be hydrolyzed to their resp. aglycon. E.g., genistin was isolated from soy molasses and hydrolyzed to give genistein.

IT **529-59-9P**, Genistin **552-66-9P**, Daidzin
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(isolation and purification of isoflavones)

RN 529-59-9 HCAPLUS

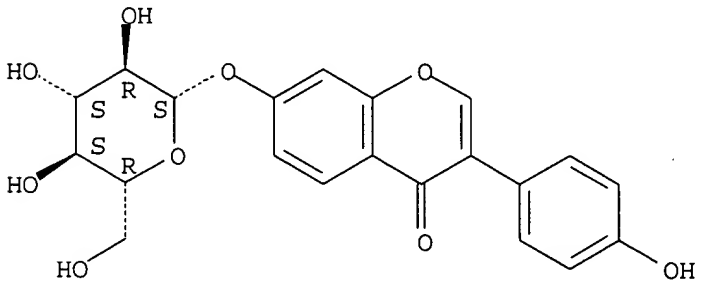
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

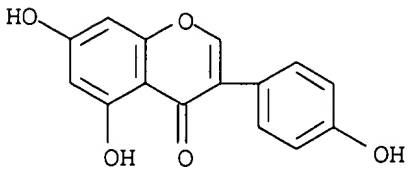


RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

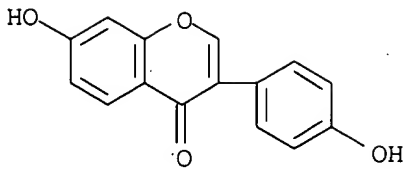
Absolute stereochemistry. Rotation (-).



IT **446-72-0P**, Genistein **486-66-8P**, Daidzein
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); USES (Uses)
(isolation and purification of isoflavones)
RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

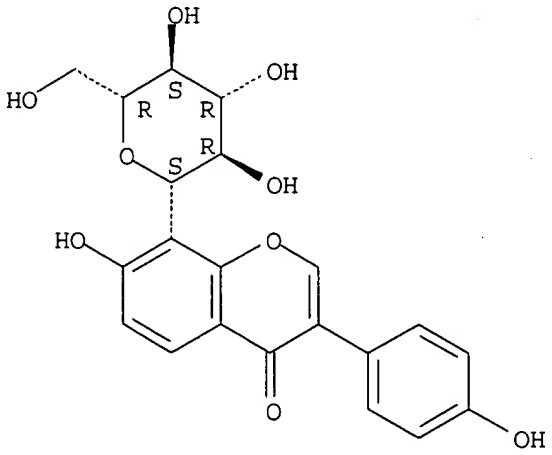


RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

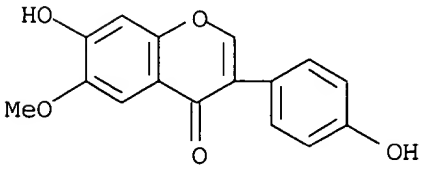


IT **3681-99-0P**, Puerarin **40957-83-3P**, Glycitein
71385-83-6P 73566-30-0P 163310-42-7P
163310-43-8P
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); USES (Uses)
(isolation and purification of isoflavones)
RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

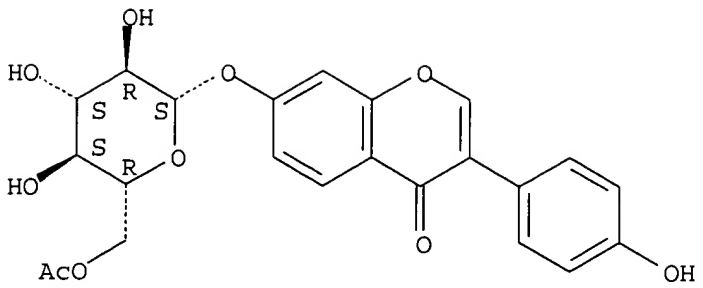


RN 40957-83-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)-6-methoxy- (9CI) (CA INDEX NAME)



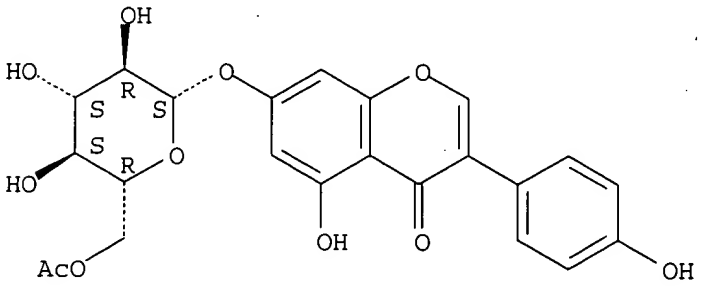
RN 71385-83-6 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-O-acetyl-β-D-glucopyranosyl)oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



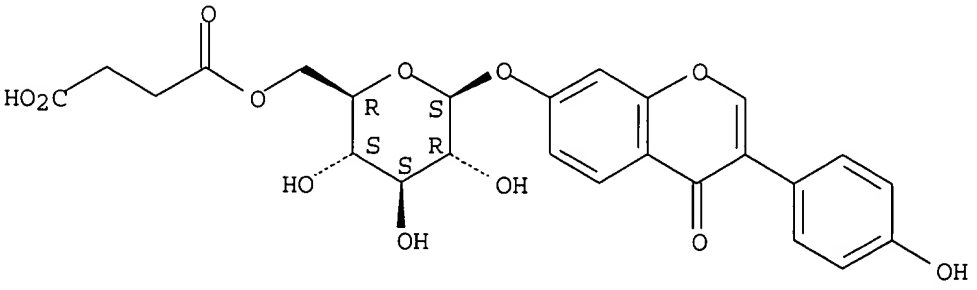
RN 73566-30-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[(6-O-acetyl-β-D-glucopyranosyl)oxy]-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



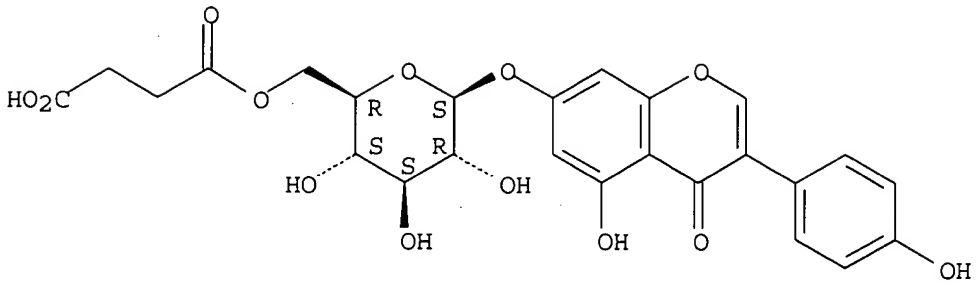
RN 163310-42-7 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(3-carboxy-1-oxopropyl)-β-D-glucopyranosyl]oxy]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

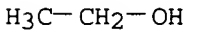


RN 163310-43-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-[[6-O-(3-carboxy-1-oxopropyl)-β-D-glucopyranosyl]oxy]-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **64-17-5**, Ethanol, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(isolation and purification of isoflavones)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)



L27 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:172486 HCAPLUS
DOCUMENT NUMBER: 126:166466
TITLE: Biflavonoids and derivatives thereof as antiviral agents, isolation thereof, and derivative preparation
INVENTOR(S): Lin, Yuh-Meei; Flavin, Michael T.; Schure, Ralph; Zembower, David E.; Zhao, Geng-Xian
PATENT ASSIGNEE(S): Medichem Research, Inc., USA
SOURCE: PCT Int. Appl., 93 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9700679	A1	19970109	WO 1996-US10718	19960621 <--
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
CA 2225341	AA	19970109	CA 1996-2225341	19960621 <--
AU 9662880	A1	19970122	AU 1996-62880	19960621 <--
AU 707798	B2	19990722		
EP 833631	A1	19980408	EP 1996-921740	19960621 <--
EP 833631	B1	20021113		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11508264	T2	19990721	JP 1996-503972	19960621
EP 1245230	A2	20021002	EP 2002-10287	19960621
EP 1245230	A3	20031126		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

	IE, FI				
AT 227569	E	20021115	AT 1996-921740		19960621
US 5948918	A	19990907	US 1998-59913		19980414
PRIORITY APPLN. INFO.:			US 1995-465P	P	19950623
			EP 1996-921740	A3	19960621
			US 1996-668284	A3	19960621
			WO 1996-US10718	W	19960621

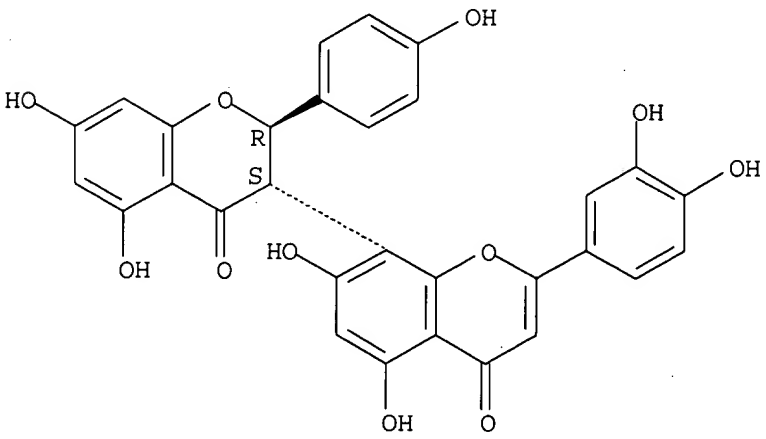
AB Substantially purified antiviral biflavanoids robustaflavone, hinokiflavone, amentoflavone, agathisflavone, volkensiflavone, morelloflavone, rhusflavanone, succedaneaflavanone, GB-1a, and GB-2a are provided. Antiviral biflavanoid derivs. and salt forms thereof, e.g., robustaflavone tetrasulfate potassium salt, and methods for preparing the same are also disclosed. Pharmaceutical compns. which include the antiviral biflavanoids, derivs. or salts thereof are also provided. Also disclosed is an improved method for obtaining substantially pure robustaflavone from plant material. The biflavanoid compds., derivs. or salts thereof of the invention may be used in a method for treating and/or preventing viral infections caused by viral agents such as influenza, e.g., influenza A and B; hepatitis, e.g., hepatitis B; human immunodeficiency virus, e.g., HIV-1; Herpes viruses (HSV-1 and HSV-2); Varicella Zoster virus (VZV); and measles.

IT **16851-21-1P**, Morelloflavone **18412-96-9P**, GB-2a
19360-72-6P, GB-1a **27542-37-6P**, Volkensiflavone
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(biflavanoids and derivs. thereof as antiviral agents, isolation thereof, and derivative preparation)

RN 16851-21-1 HCAPLUS

CN [3,8'-Bi-4H-1-benzopyran]-4,4'-dione, 2'-(3,4-dihydroxyphenyl)-2,3-dihydro-5,5',7,7'-tetrahydroxy-2-(4-hydroxyphenyl)-, (2R,3S)- (9CI) (CA INDEX NAME)

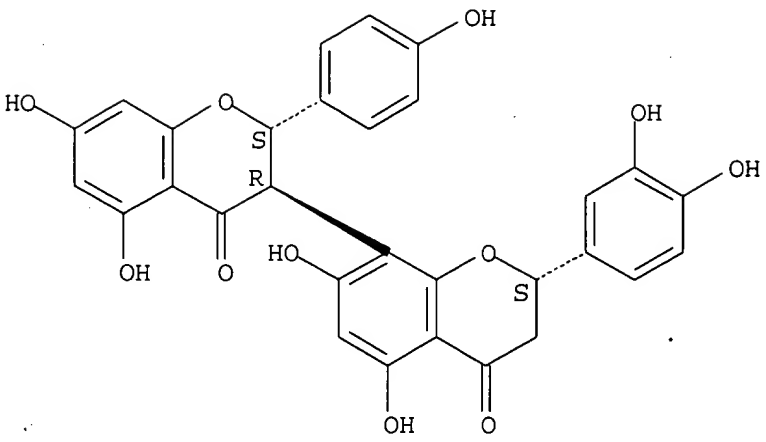
Absolute stereochemistry.



RN 18412-96-9 HCAPLUS

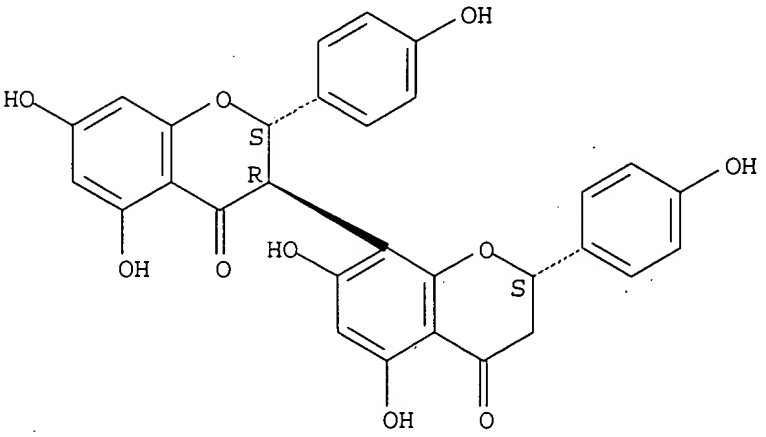
CN [3,8'-Bi-4H-1-benzopyran]-4,4'-dione, 2'-(3,4-dihydroxyphenyl)-2,2',3,3'-tetrahydro-5,5',7,7'-tetrahydroxy-2-(4-hydroxyphenyl)-, (2S,2'S,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



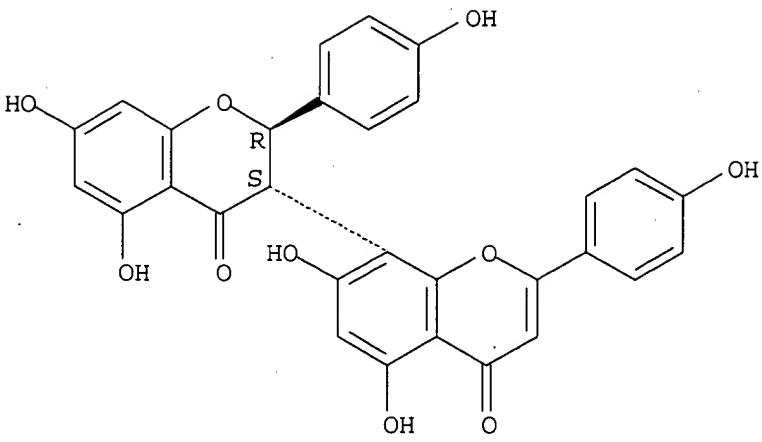
RN 19360-72-6 HCAPLUS
CN. [3,8'-Bi-4H-1-benzopyran]-4,4'-dione, 2,2',3,3'-tetrahydro-5,5',7,7'-tetrahydroxy-2,2'-bis(4-hydroxyphenyl)-, (2S,2'S,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



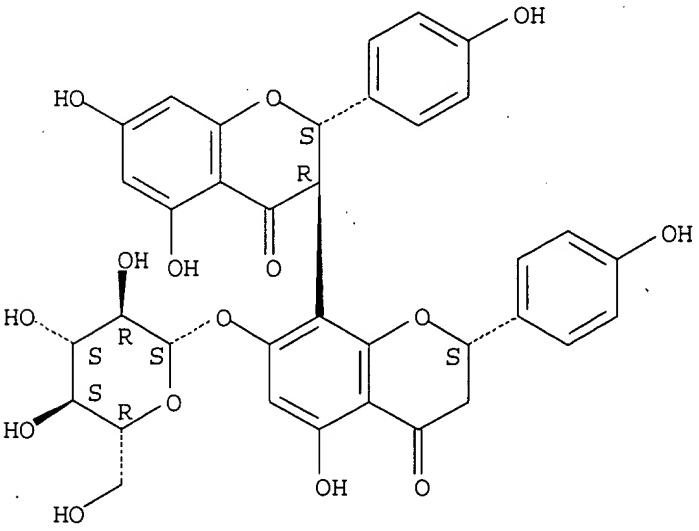
RN 27542-37-6 HCAPLUS
CN [3,8'-Bi-4H-1-benzopyran]-4,4'-dione, 2,3-dihydro-5,5',7,7'-tetrahydroxy-2,2'-bis(4-hydroxyphenyl)-, (2R,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT **56663-56-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biflavanoids and derivs. thereof as antiviral agents, isolation thereof, and derivative preparation)
RN 56663-56-0 HCAPLUS
CN [3,8'-Bi-4H-1-benzopyran]-4,4'-dione, 7'-(β-D-glucopyranosyloxy)-2,2',3,3'-tetrahydro-5,5',7-trihydroxy-2,2'-bis(4-hydroxyphenyl)-, (2S,2'S,3R)- (9CI) (CA INDEX NAME)

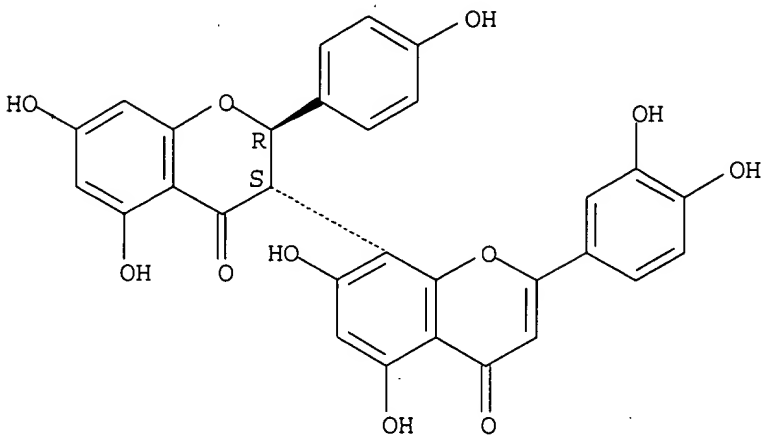
Absolute stereochemistry.



IT **16851-21-1D**, Morelloflavone, derivs. **18412-96-9D**, GB-2a, derivs. **19360-72-6D**, GB-1a, derivs. **27542-37-6D**, Volkensiflavone, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biflavanoids and derivs. thereof as antiviral agents, isolation thereof, and derivative preparation)
RN 16851-21-1 HCAPLUS
CN [3,8'-Bi-4H-1-benzopyran]-4,4'-dione, 2'-(3,4-dihydroxyphenyl)-2,3-dihydro-

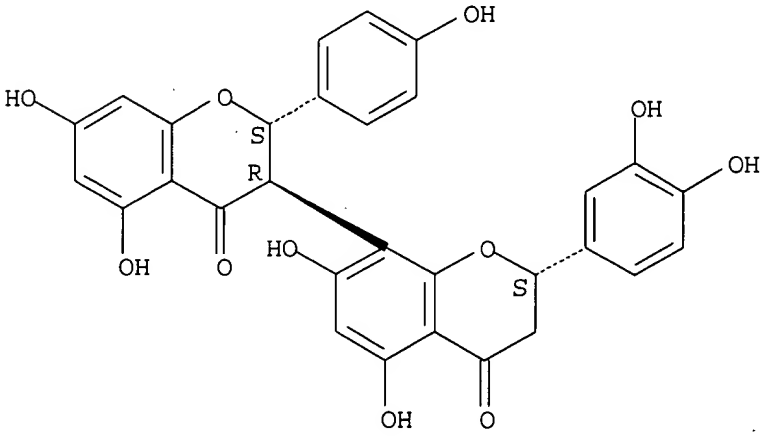
5,5',7,7'-tetrahydroxy-2-(4-hydroxyphenyl)-, (2R,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



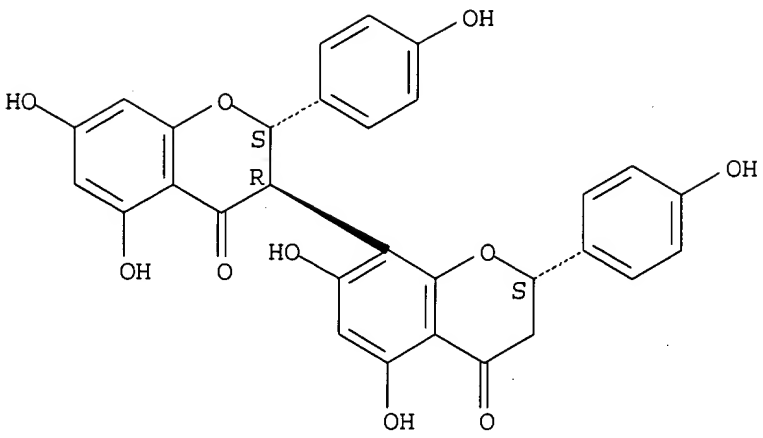
RN 18412-96-9 HCAPLUS
CN [3,8'-Bi-4H-1-benzopyran]-4,4'-dione, 2'-(3,4-dihydroxyphenyl)-2,2',3,3'-tetrahydro-5,5',7,7'-tetrahydroxy-2-(4-hydroxyphenyl)-, (2S,2'S,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



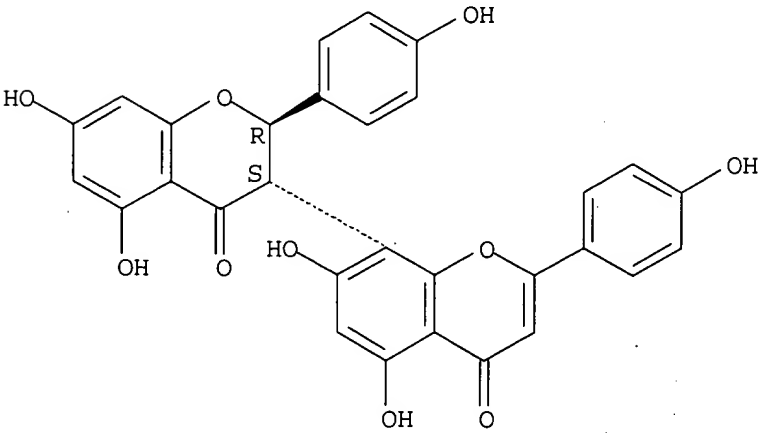
RN 19360-72-6 HCAPLUS
CN [3,8'-Bi-4H-1-benzopyran]-4,4'-dione, 2,2',3,3'-tetrahydro-5,5',7,7'-tetrahydroxy-2,2'-bis(4-hydroxyphenyl)-, (2S,2'S,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 27542-37-6 HCAPLUS
CN [3,8'-Bi-4H-1-benzopyran]-4,4'-dione, 2,3-dihydro-5,5',7,7'-tetrahydroxy-2,2'-bis(4-hydroxyphenyl)-, (2R,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT **64-17-5**, Ethanol, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent extraction mixture containing; biflavanoids and derivs. thereof as antiviral agents, isolation thereof, and derivative preparation)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

L27 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:650879 HCAPLUS
DOCUMENT NUMBER: 125:295093
TITLE: Daidzin decreases ethanol consumption in rats
AUTHOR(S): Heyman, Gene M.; Keung, Wing-Ming; Vallee, Bert L.
CORPORATE SOURCE: Department Psychology, Harvard University, Cambridge,

MA, 02138, USA
SOURCE: Alcoholism: Clinical and Experimental Research (**1996**), 20(6), 1083-1087
CODEN: ACRSDM; ISSN: 0145-6008
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

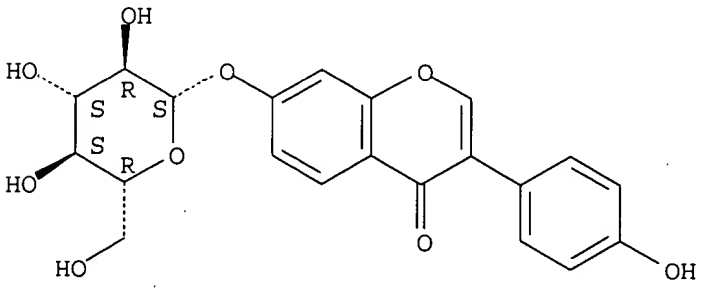
AB In a previous study, daidzin, a constituent of an ancient Chinese herbal treatment for alcoholism, decreased home-cage ethanol consumption in laboratory Syrian golden hamsters. The present study tested the generality of daidzin's antidipsotropic effects. Rats served as subjects in a two-lever choice procedure. At one lever, responses earned 10% ethanol, flavored with saccharin. At the other lever, responses earned an isocaloric starch solution Daidzin decreased both ethanol and starch consumption, but the decreases in ethanol intake were larger. Changes in consumption were dose dependent, and differences in ethanol and food consumption increased slightly (but significantly) as dose increased. Daidzin produced a similar pattern of decreases in lever pressing. In baseline, there was an approx. equal distribution of responses between the two levers; at the highest daidzin dose, the relative number of responses at the ethanol lever decreased to 30%. These results replicate and extend earlier findings, and they encourage further research on daidzin's capacity to decrease ethanol consumption.

IT **64-17-5**, Ethanol, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(daidzin decreases ethanol consumption in rats)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

IT **552-66-9**, Daidzin
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(daidzin decreases ethanol consumption in rats)
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L27 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:537746 HCAPLUS
DOCUMENT NUMBER: 125:230777

TITLE: Herbal extracts for anti-intoxication compositions
INVENTOR(S): Duthinh, Phu
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

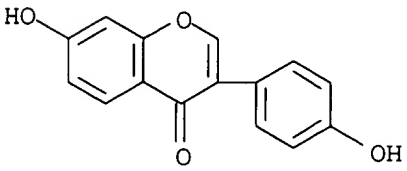
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5547671	A	19960820	US 1995-531351	19950920 <--
CA 2229796	AA	19970327	CA 1996-2229796	19960624 <--
WO 9710835	A1	19970327	WO 1996-US10766	19960624 <--
W: AU, CA, CZ, HU, JP, MX, NZ, PL, RU, SI, SK, UA				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9663912	A1	19970409	AU 1996-63912	19960624 <--
AU 709880	B2	19990909		
EP 851761	A1	19980708	EP 1996-923390	19960624
R: AT, BE, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE, PT, FI				
JP 11511471	T2	19991005	JP 1996-512675	19960624

PRIORITY APPLN. INFO.: US 1995-531351 A 19950920
WO 1996-US10766 W 19960624

AB An anti-intoxication composition for combating side effects of an excessive consumption of alc. may be taken orally as a food supplement before or after drinking. The composition comprises a plurality of herbal or vegetable exts. in defined quantities, at least one of them containing naturally occurring daidzin and daidzein in sufficient quantities to control the gastric and hepatic metabolism of alc. A composition in the form of tablets, capsules, or pouches contains 0.5-2.5 g of extract of kudzu vine blossom (Flos pueraria), 5-25 g of starch derived from the root of kudzu vine (Radix pueraria), 0.5-2.5 g of extract of American ginseng (Panax quinquefolium), 0.5-2.5 g of extract of ginger root (Radix zingiber officinalis), 0.25-1.25 g of extract of tangerine peel, 0.25-1.25 g of extract of green lemon peel, 0.5-2.5 g of extract of magnolia tree bark, and 50 mg of thiamine.

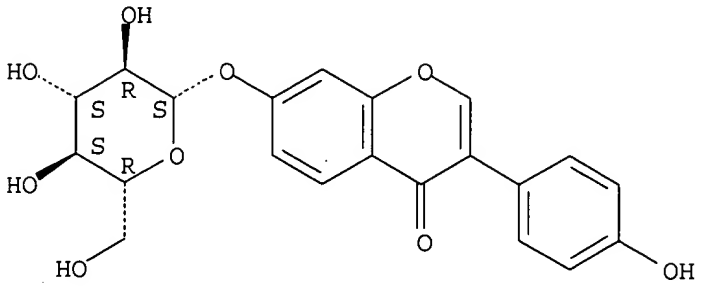
IT **486-66-8P**, Daidzein **552-66-9P**, Daidzin
RL: FFD (Food or feed use); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(herbal exts. for anti-intoxication compns.)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



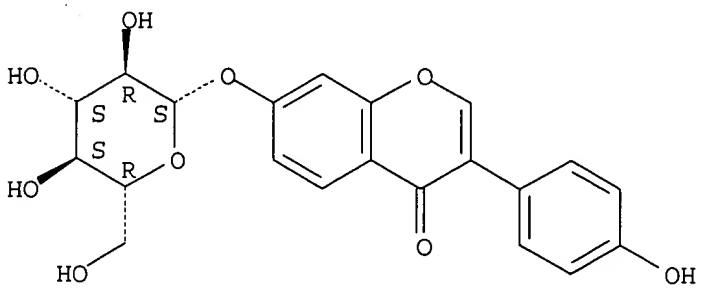
L27 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:286932 HCAPLUS
DOCUMENT NUMBER: 125:3434
TITLE: Potentiation of the bioavailability of daidzin by an extract of Radix puerpariae
AUTHOR(S): Keung, Wing-Ming; Lazo, Oscar; Kunze, Lisa; Vallee, Bert L.
CORPORATE SOURCE: Cent. Biochem. Biophys. Sci. Med., Harvard Med. Sch., Boston, MA, 02115, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (**1996**), 93(9), 4284-4288
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The dose effect of pure daidzin on the suppression of ethanol intake in Syrian gold hamsters was compared with that of crude daidzin contained in a methanol extract of Radix puerpariae (RP). EC50 values estimated from the graded dose-response curves for pure daidzin and RP extract daidzin are 23 and 2.3 mg per hamster per day, resp. Apparently the antidipsotropic activity of the RP extract cannot be accounted for solely by its daidzin content (22 mg/g). In addition to daidzin, six other isoflavones were identified in the RP extract and quantified - namely, puerparin (160 mg per g of extract), genistin (3.7 mg/g), daidzein (2.6 mg/g), daidzein-4',7'-diglucoside (1.2 mg/g), genistein (0.2 mg/g), and formononetin (0.16 mg/g). None of these, administered either alone or combined, contributes in any significant way to the antidipsotropic activity of the extract Plasma daidzin concentration-time curves determined in hamsters administered various doses of pure daidzin or RP extract by i.p. injection indicate that the crude extract daidzin has ≈10 times greater bioavailability than the pure compound Reconstruction of the dose-response effects for pure and crude daidzin using bioavailable daidzin rather than administered dose gives a single curve. Synthetic daidzin added to the RP extract acquires the bioavailability of the endogenous daidzin that exists naturally in the extract These results show that (i) daidzin is the major active principle in methanol exts. of RP, and (ii) addnl. constituents in the methanol extract of RP assist uptake of daidzin in golden hamsters.

IT **552-66-9**, Daidzin
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(daidzin bioavailability potentiation by extract of Radix puerpariae in relation to ethanol consumption)

RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

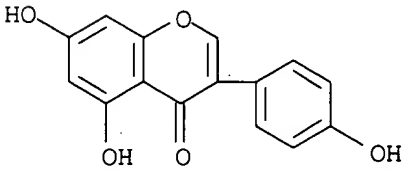
Absolute stereochemistry. Rotation (-).



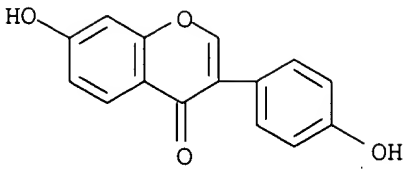
IT **64-17-5**, Ethanol, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(daidzin bioavailability potentiation by extract of Radix puerpariae in relation to ethanol consumption)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

IT **446-72-0**, Genistein **486-66-8**, Daidzein **529-59-9**
, Genistin **3681-99-0**, Puerarin
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(isoflavones of extract of Radix puerpariae in relation to ethanol consumption)
RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

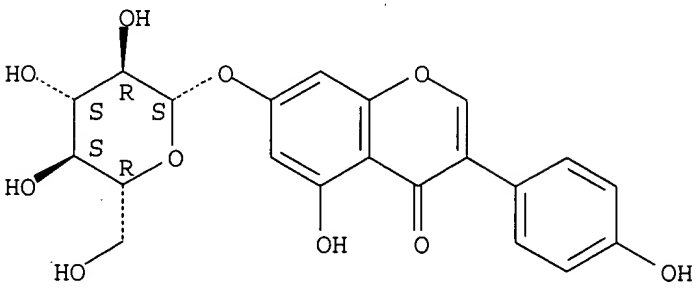


RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



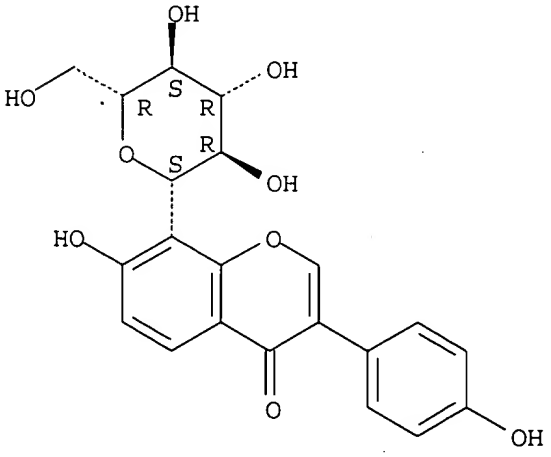
RN 529-59-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L27 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1995:805959 HCAPLUS
DOCUMENT NUMBER: 123:248998
TITLE: Daidzin suppresses ethanol consumption by Syrian golden hamsters without blocking acetaldehyde metabolism
AUTHOR(S): Keung, Wing-Ming; Lazo, Oscar; Kunze, Lisa; Vallee,

Bert L.
CORPORATE SOURCE: Cent. Biochem. Biophys. Sci. Med., Harvard Med. Sch., Boston, MA, 02115, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (**1995**), 92(19), 8990-93
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

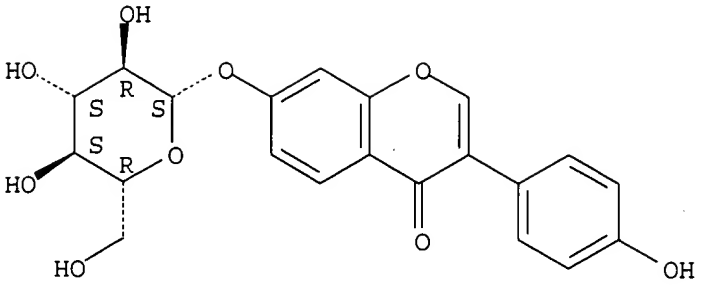
AB Daidzin is a potent, selective, and reversible inhibitor of human mitochondrial aldehyde dehydrogenase (ALDH) that suppresses free-choice ethanol intake by Syrian golden hamsters. Other ALDH inhibitors, such as disulfiram (Antabuse) and calcium citrate carbimide (Temposil), have also been shown to suppress ethanol intake of laboratory animals and are thought to act by inhibiting the metabolism of acetaldehyde produced from ingested ethanol. To determine whether or not daidzin inhibits acetaldehyde metabolism in vivo, plasma acetaldehyde in daidzin-treated hamsters was measured after the administration of a test dose of ethanol. Daidzin treatment (150 mg/kg per day i.p. for 6 days) significantly suppresses (>70%) hamster ethanol intake but does not affect overall acetaldehyde metabolism In contrast, after administration of the same ethanol dose, plasma acetaldehyde concentration in disulfiram-treated hamsters reaches 0.9 mM, 70 times higher than that of the control. In vitro, daidzin suppresses hamster liver mitochondria-catalyzed acetaldehyde oxidation very potently with an IC50 value of 0.4 μM, which is substantially lower than the daidzin concentration (70 μM) found in the liver mitochondria of daidzin-treated hamsters. These results indicate that (i) the action of daidzin differs from that proposed for the classic, broad-acting ALDH inhibitors (e.g., disulfiram), and (ii) the daidzin-sensitive mitochondrial ALDH is not the one and only enzyme that is essential for acetaldehyde metabolism in golden hamsters.

IT **64-17-5**, Ethanol, biological studies
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(daidzin suppresses ethanol consumption by Syrian golden hamsters without blocking acetaldehyde metabolism)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

IT **552-66-9**, Daidzin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(daidzin suppresses ethanol consumption by Syrian golden hamsters without blocking acetaldehyde metabolism)
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

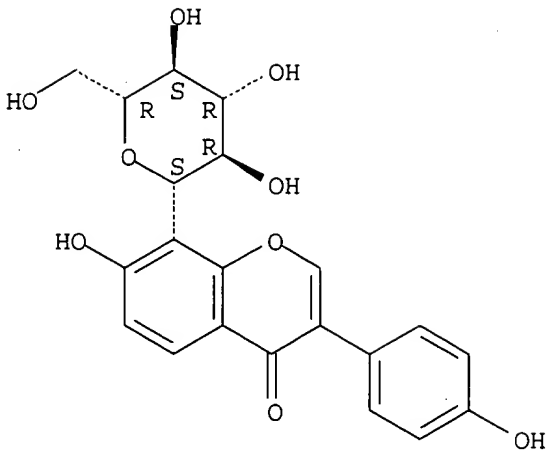


L27 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:587392 HCAPLUS
DOCUMENT NUMBER: 121:187392
TITLE: Comparative study with thin-layer chromatography on water and ethanol as extraction solvents for components of Puerariae Radix
AUTHOR(S): Yang, Hong; Yang, Honglin
CORPORATE SOURCE: School of Pharmacy, West China University of Medical Sciences, Chengdu, 610041, Peop. Rep. China
SOURCE: Huaxi Yaoxue Zazhi (**1994**), 9(1), 35-8
CODEN: HYZAE2; ISSN: 1006-0103
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Puerariae Radix in the Chinese Pharmacopeia is a traditional medicine used to moderate headache and fever. Its pharmaceutical prepns. are usually tablets prepared by ethanol extract, and no reports dealing with water as the extraction solvent have been published. In this paper, water and ethanol were used resp. to extract the components of Puerariae Radix and the exts. were examined by TLC, using the fluorescence spots in the chromatographs as the comparative criteria. In order to obtain a better separation effect of the components, the developer of TLC was investigated and optimized and the mixture of chloroform-methanol-water (14:6:0.5) was found to give five spots in TLC chromatographs, while the developer used in the literature only gave three spots. The results indicated no difference between water and ethanol as the extraction solvents in the number, color tone, intensity and Rf values of the fluorescence spots in the chromatographs. Hence, it may be concluded that water can be used to replace ethanol to extract the components of Puerariae Radix with same extraction technique which would have significant economic value in production on a large scale.

IT **3681-99-0**, Puerarin
RL: ANT (Analyte); ANST (Analytical study)
(water and ethanol as extraction solvents for TLC of glycosides of Puerariae Radix)
RN 3681-99-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 8-β-D-glucopyranosyl-7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **64-17-5**, Ethanol, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(water and ethanol as extraction solvents for TLC of glycosides of Puerariae Radix)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

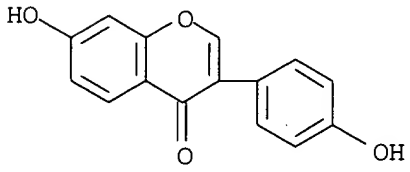
L27 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:2642 HCAPLUS
DOCUMENT NUMBER: 120:2642
TITLE: Daidzin and daidzein suppress free-choice ethanol intake by Syrian Golden hamsters
AUTHOR(S): Keung, Wing Ming; Vallee, Bert L.
CORPORATE SOURCE: Cent. Biochem. Biophys. Sci. Med., Harvard Med. Sch., Boston, MA, 02115, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (**1993**), 90(21), 10008-12
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Syrian Golden hamsters prefer and consume large and remarkably constant amts. of ethanol in a simple two-bottle free-choice regimen. Ethanol intake is significantly suppressed by zimelidine, bromocryptine, buspirone, and lithium carbonate, pharmacol. agents that have been shown to be beneficial in controlling ethanol intake in alc.-dependent humans. These results suggest that this ethanol-drinking animal model has high "predictive validity" and can be used effectively in the search for and identification of new agents for the treatment of alc. abuse. The model has enabled the authors to confirm the putative antidipsotropic effect of Radix puerariae (RP), an herb long used in traditional Chinese medicine for the treatment of patients who abuse alc. A crude extract of RP at a dose of 1.5 g·kg-1·day-1 significantly suppresses (>50%) the free-choice ethanol intake of Golden hamsters. Moreover, two major constituents of RP, daidzein (4',7-dihydroxyisoflavone) and daidzin (the

7-glucoside of daidzein), were also shown to suppress free-choice ethanol intake. Daidzin and daidzein, at doses of 150 and 230 mg·kg-1·day-1, resp., suppress ethanol intake by >50%. RP, daidzein, and daidzin treatment do not significantly affect the body weight and water or food intake of the hamsters. These findings identify a class of compds. that offer promise as safe and effective therapeutic agents for alc. abuse.

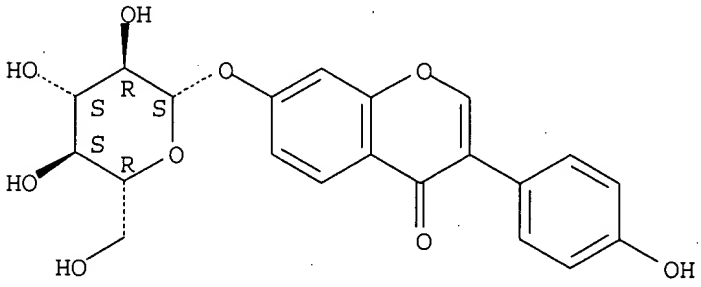
IT **486-66-8**, Daidzein **552-66-9**, Daidzin
RL: BIOL (Biological study)
(ethanol intake suppression by)

RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



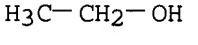
RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT **64-17-5**, Ethanol, biological studies
RL: BIOL (Biological study)
(intake, suppression of, by daidzin and daidzein)

RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)



L27 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:231797 HCAPLUS
DOCUMENT NUMBER: 116:231797
TITLE: Chemoattraction of zoospores of the soybean pathogen, Phytophthora sojae, by isoflavones
AUTHOR(S): Morris, P. F.; Ward, E. W. B.
CORPORATE SOURCE: Agric. Canada Res. Cent., London, ON, N6G 2V4, Can.

SOURCE: Physiological and Molecular Plant Pathology (**1992**), 40(1), 17-22
CODEN: PMPPEZ; ISSN: 0885-5765
DOCUMENT TYPE: Journal
LANGUAGE: English

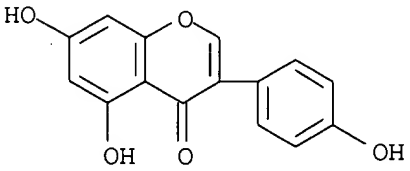
AB The main infective agents in plant diseases caused by spp. of the fungal genera Phytophthora and Pythium are zoospores that are attracted chemotactically to plant surfaces. The simple isoflavones daidzein and genistein, which occur in soybean root exudates, are highly effective chemoattractants for zoospores of P. sojae, an economically important pathogen of soybeans. When added to suspensions of actively swimming zoospores, daidzein and genistein also cause rapid encystment and germination. The isoflavones are active at concns. ≥10 nM but are inactive with zoospores of several other spp. of Phytophthora and Pythium nonpathogenic on soybeans. Daidzein and genistein are also inducers of nodulation genes in Bradyrhizobium japonicum, the N2-fixing bacterial symbiont of soybeans. Thus, both the pathogen and the symbiont identify their host by recognizing the same chemical signals.

IT **64-17-5**, Ethanol, biological studies **446-72-0**, Genistein **486-63-5**, Isoformononetin **486-66-8**, Daidzein **529-59-9**, Genistin **552-66-9**, Daidzin
RL: BIOL (Biological study)
(as chemoattractant for zoospores of fungi)

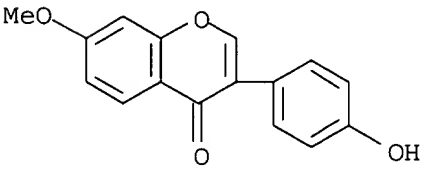
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

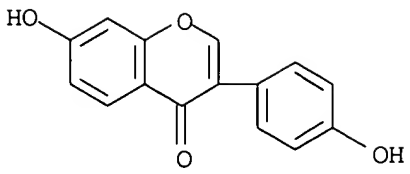
RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



RN 486-63-5 HCAPLUS
CN 4H-1-Benzopyran-4-one, 3-(4-hydroxyphenyl)-7-methoxy- (9CI) (CA INDEX NAME)

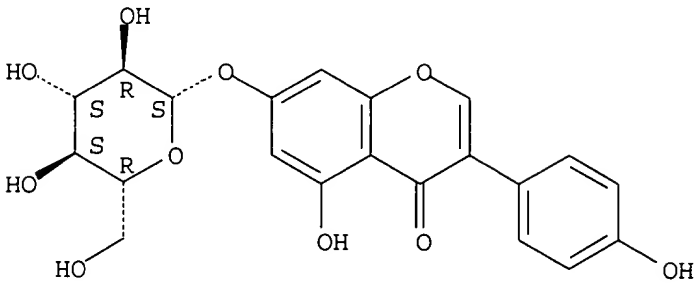


RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



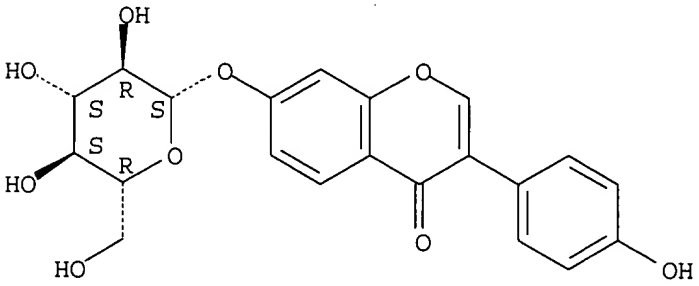
RN 529-59-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 552-66-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

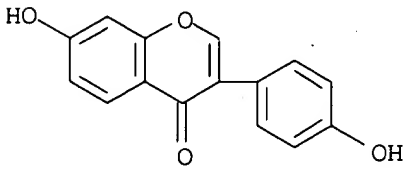


L27 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:509686 HCAPLUS
DOCUMENT NUMBER: 115:109686
TITLE: Separation and identification of phytoalexins from leaves of groundnut (Arachis hypogaea) and development of a method for their determination by reversed-phase high-performance liquid chromatography
AUTHOR(S): Edwards, Christine; Strange, Richard N.
CORPORATE SOURCE: Dep. Biol., Univ. Coll. London, London, WC1E 6BT, UK
SOURCE: Journal of Chromatography (**1991**), 547(1-2), 185-93
CODEN: JOCRAM; ISSN: 0021-9673

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Leaves of A. hypogaea, infected with the early leaf spot fungus, Cercospora arachidicola, were extracted in aqueous EtOH extract on silica gel yielded fractions with 1-5 compds. from which the phytoalexins could be isolated by semipreparative reversed-phase HPLC. The major phytoalexins were demethylmedicarpin, formononetin, 7,4'-dimethoxy-2'-hydroxyisoflavone, and medicarpin. Minor components were 7,2'-dihydroxy-4'-methoxyisoflavanone and daidzein. Compds. were identified by cochromatog. and comparison of their UV and mass spectra with authentic samples using an HPLC system equipped with a diode-array detector, HPLC, mass spectrometry, and gas chromatog.-mass spectrometry of their trimethylsilyl derivs. A solid-phase extraction method was developed for processing large nos. of samples. MeCN eluates from C18 cartridges were separated by reversed-phase HPLC and the phytoalexins quantified by reference to external stds. of the authentic compds.
IT **64-17-5**, Ethanol, uses and miscellaneous
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(extraction by, of phytoalexins from groundnut)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

IT **486-66-8**, Daidzein
RL: ANT (Analyte); ANST (Analytical study)
(separation and determination of, of groundnut, by extraction HPLC)
RN 486-66-8 HCAPLUS
CN 4H-1-Benzopyran-4-one, 7-hydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



L27 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1987:533745 HCAPLUS
DOCUMENT NUMBER: 107:133745
TITLE: Fast atom bombardment of organic substrates at controlled low temperatures
AUTHOR(S): Heckles, Keith; Johnstone, Robert A. W.; Wilby, Anna H.
CORPORATE SOURCE: Dep. Org. Chem., Univ. Liverpool, Liverpool, L69 3BX, UK
SOURCE: Tetrahedron Letters (**1987**), 28(1), 103-6
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A new fast atom bombardment probe, in which the temperature of the sample area at the tip can be controlled to ±1° between about +35° to

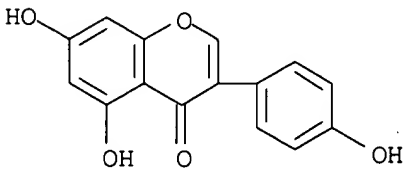
-130°, has been used to exam. normally volatile solvents and substrates and to investigate equilibrium in solution

IT **64-17-5**, Ethanol, properties **446-72-0**, Genistein
RL: PRP (Properties)
(fast atom bombardment and spectrum of)

RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)

H_3C-CH_2-OH

RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



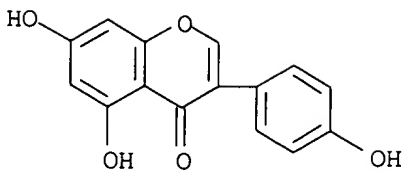
L27 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1981:456059 HCAPLUS
DOCUMENT NUMBER: 95:56059
TITLE: Effect of ethanol feeding upon levels of a male-specific hepatic estrogen-binding protein: a possible mechanism for feminization
AUTHOR(S): Eagon, Patricia K.; Porter, Lynne E.; Gavaler, Judith S.; Egler, Kimberly M.; Van Thiel, David H.
CORPORATE SOURCE: Sch. Med., Univ. Pittsburgh, Pittsburgh, PA, 15261, USA
SOURCE: Alcoholism: Clinical and Experimental Research (**1981**), 5(2), 183-7
CODEN: ACRSDM; ISSN: 0145-6008
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Male, but not female, rat liver cytosol contains an estrogen-binding protein with unique properties: rapid binding of estradiol [50-28-2], high binding capacity, moderate affinity for estradiol, and specificity for steroidal estrogens and weak androgens, but not for nonsteroidal estrogens or other steroids. The estradiol-binding activity of this protein is reduced in cytosol from livers of EtOH [**64-17-5**]-fed rats as compared to that from their isocalorically fed controls. The properties of this male-specific hepatic estrogen-binding protein suggest a role for this protein in the regulation of estrogen levels in the male animal. Moreover, the reduction in activity of this unique protein in the liver of alc.-fed animals may explain, at least in part, the feminization commonly seen in chronic alc. men.

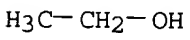
IT **446-72-0**
RL: BIOL (Biological study)
(binding of, to male liver proteins, ethanol effect on, feminization in relation to)

RN 446-72-0 HCAPLUS
CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-3-(4-hydroxyphenyl)- (9CI) (CA INDEX

NAME)



IT **64-17-5**, biological studies
RL: BIOL (Biological study)
(male-specific hepatic estrogen-binding protein response to, feminization in relation to)
RN 64-17-5 HCAPLUS
CN Ethanol (9CI) (CA INDEX NAME)



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SET COMMAND COMPLETED

=> d his

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L2              50 S L1
L3            1168 S L1 FULL
               E ALDH-2/CN
L4              48 S ALDH2 OR ALDH(L)2

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     FILE 'REGISTRY' ENTERED AT 15:00:16 ON 25 JUL 2005
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               E ALCOHOL DEHYDROGENASE/CN
               E ALCOHOL DEHYDROGENASE 2/CN
L6              27 S ALCOHOL DEHYDROGENASE 2?/CN

     FILE 'HCAPLUS' ENTERED AT 15:02:19 ON 25 JUL 2005


     FILE 'HCAPLUS' ENTERED AT 15:02:54 ON 25 JUL 2005
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     FILE 'REGISTRY' ENTERED AT 15:02:54 ON 25 JUL 2005
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L9              25 S L8  AND 46.150.18/RID
                E 5-HYDROXYINDOLE-3-ACETIC ACID/CN
L10              3 S E3-E6
                E 3,4-DIHYDROXYPHENYLACETIC ACID/CN
L11             10 S E4-E13
                E 5-HYDROXYINDOLE-3-ACETALDEHYDE/CN
L12              1 S E3
                E 3,4-DIHYDROXYPHENYL-ACETALDEHYDE/CN
                E 3,4-DIHYDROXYPHENYL ACETALDEHYDE/CN
L13             16 S DIHYDROXYPHENYL (L) ACETALDEHYDE
L14              1 S HYDROXYINDOLE (L) ACETALDEHYDE

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L16            684 S L6 OR L4 OR ALDH2 OR ALDH (W)2 OR ALCOHOL (W) DEHYDROGENASE (
L17              8 S L15 AND L16

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     FILE 'HCAPLUS' ENTERED AT 15:16:05 ON 25 JUL 2005
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L19              8 S L15 AND L18
L20              4 S L19 NOT L17
L21             33 S L15 (L) (ALCOHOL?)
L22             29 S L21 NOT (L17 OR L20)
                E ALCOHOLISM/CT
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